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Volume 22 AUGUST 1953 Number 8

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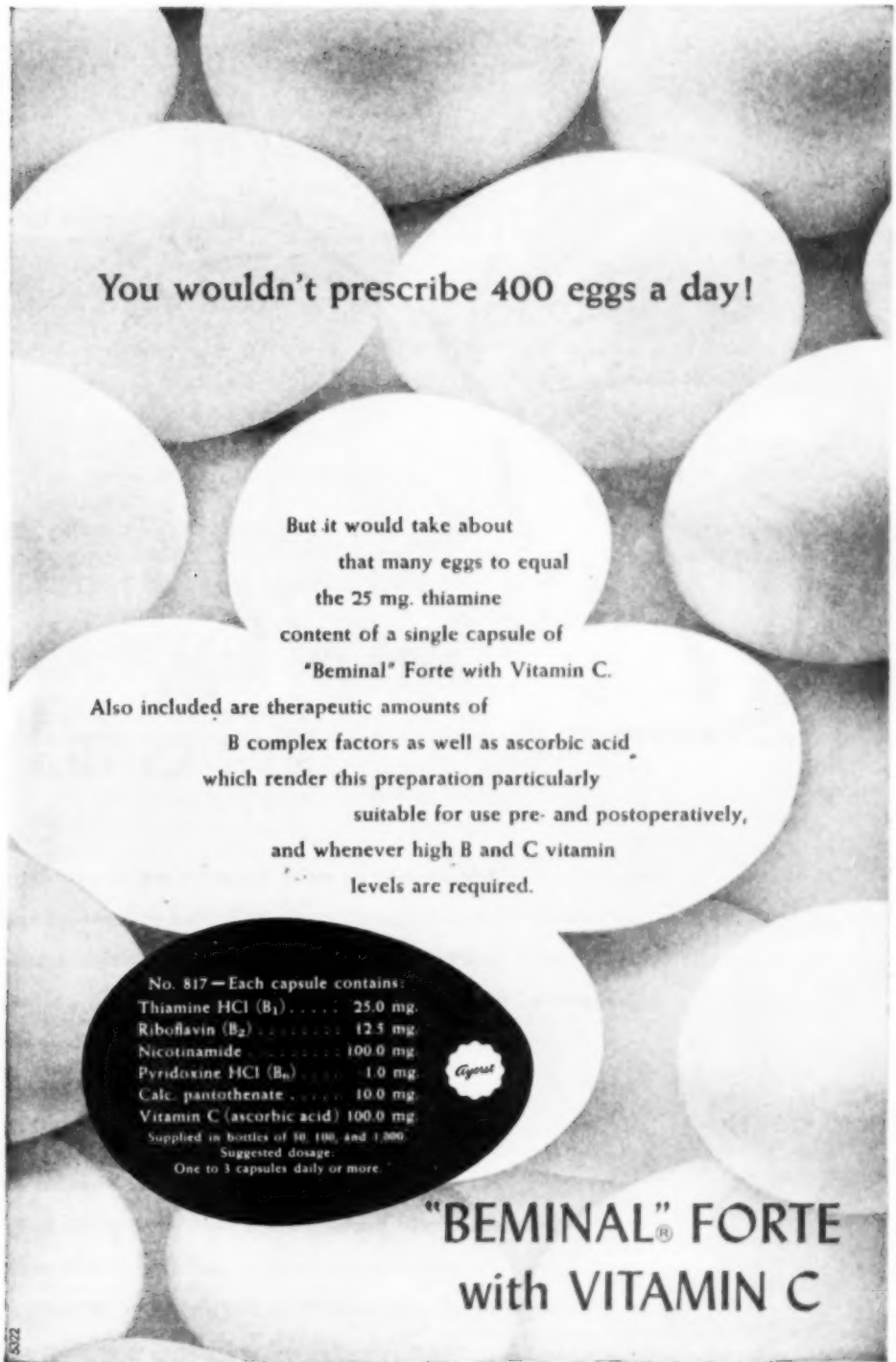
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JEAN SPENCER FELTON, M.D., since 1946 Medical Director, Oak Ridge National Laboratory, Oak Ridge, Tennessee, has resigned from that position to become affiliated with the University of Oklahoma Medical School at Oklahoma City, where he will have a joint appointment as Associate Professor in the Department of Medicine and the Department of Preventive Medicine. He will also be Director of the Employee Health Service at the University. In addition, he has been named Consultant for the State Department of Health in Industrial Hygiene. His new appointments were effective July 15, 1953.

F. BENEDICT LANAHAN, M.D., has been appointed Professor of Occupational Medicine, Woman's Medical College of Pennsylvania, effective July 1. DR. LANAHAN was graduated from St. Joseph's College in 1931, and from Jefferson Medical College in 1935. For seven years he was engaged in private practice in Narberth, but since 1947 he has devoted full time to industrial medicine. He has held teaching posts at Jefferson Medical College, University of Cincinnati, and St. Joseph's College. In the field of industrial medicine he was assistant plant physician in 1947 for E. I. du Pont de Nemours and Company in Arlington, New Jersey, and since November of that year he has been Medical Director, Electric Storage Battery Company, Philadelphia. For three months in 1951 he performed similar services for Hilton-David Chemical Corporation and Davidson Chemical Corporation, Cincinnati. He has done important work in connection with lead poisoning and cardiac rehabilitation. He is Past-Chairman of the industrial medicine section, Philadelphia County Medical Society; Past-President of the Philadelphia section, American Industrial Hygiene Association; President of Philadelphia Industrial Medical Association; and a member of the medical advisory board of the National Association of Manufacturers. He entered the Army Medical Corps as a First Lieutenant in 1942 and was en route to the China-Burma-India theatre in February, 1945, when

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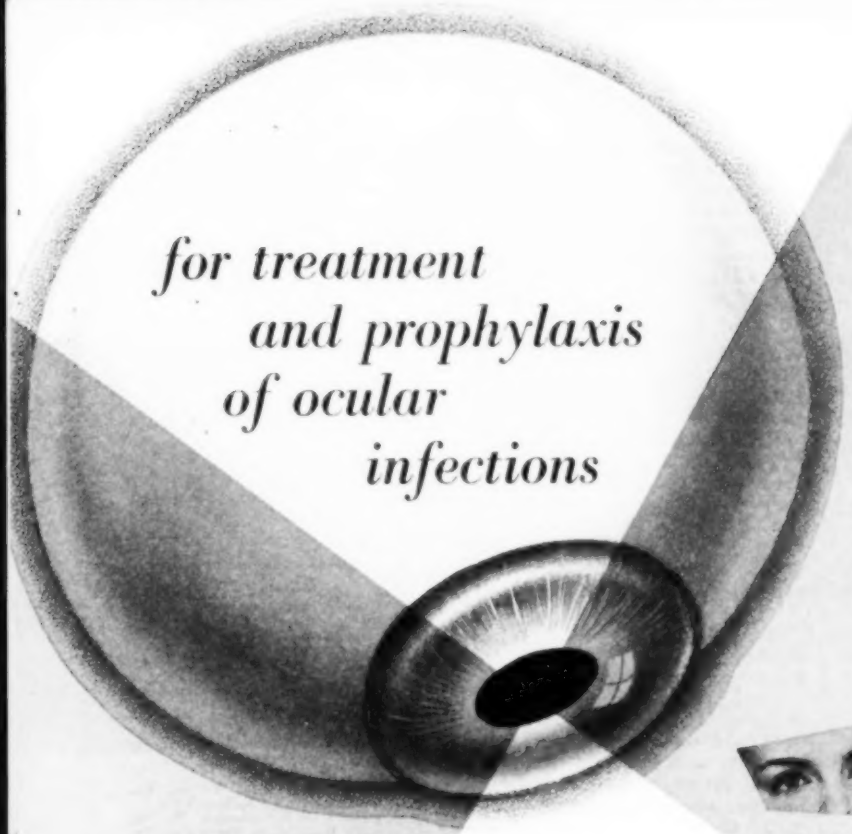

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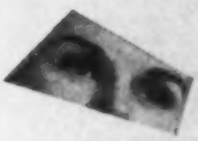

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his ship was sunk by a torpedo in the Indian Ocean. He was rescued after seven days adrift with 16 others in a life raft. Subsequently he served in the South Pacific. He was released with the rank of Captain in 1945.

ROBERT E. ECKARDT, M.D., Redfield Village, Metuchen, New Jersey, has been appointed an Associate Clinical Professor of Industrial Medicine at New York University-Bellevue Medical Center. This appointment places DR. ECKARDT on the part-time staff of the Post-Graduate Medical School. DR. ECKARDT, Director of the Medical Research Division of the Standard Oil Development Company, received his bachelor's degree in chemistry, with honors, from Antioch College in 1937; his Ph.D. in bio-chemistry from Western Reserve University in 1940; his M.D. from Western Reserve Medical School in 1943. He entered the Medical Corps in 1944, and was relieved from active duty as a Major in 1947. He is the author of several papers dealing with carcinogenesis. He joined the Medical Department of Standard Oil Company (New Jersey) in 1948; was made Assistant Director of the Medical Research Section in 1950, and, when this organization became a part of the Standard Oil Development Company, he became its Director. He is a member of the American Medical Association, the Industrial Medical Association, the American Industrial Hygiene Association, the New York Academy of Medicine, and the Union County Medical Society.

EDWARD H. CARLETON, M.D., has been appointed General Medical Director, Inland Steel Company, effective June 1, 1953. DR. CARLETON was born in Ayer, Massachusetts, October 25, 1904; attended the University of Louisville, 1925-1928, and the University of Louisville Medical School, 1928-1932, where he received his M.D. He interned at Louisville City Hospital 1932-1934; and was in general practice, with special interest in orthopedic surgery, 1934-1937, becoming identified with Inland Steel in the latter year. In February, 1944, he was appointed Medical Director, at East Chicago, Indiana. With the expansion of the company medical program, he now becomes General Medical Director. DR. CARLETON is a Past-President of the

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Industrial Medical Association; a member of the Committee on Industrial Health of the Indiana Medical Association; a member of the Tuberculosis Committee of the Lake County Indiana Medical Society; Vice-President of the County Tuberculosis Association; a member of the Executive Committee, Metals Section, National Safety Council; and a member of the American Industrial Hygiene Association. He has published articles on "Infantile Diarrhea," "Carbon Monoxide Asphyxia," "Heat Sickness," and other subjects, and has conducted research in diseases peculiar to the iron and steel industry. He is Chairman of the Committee on Industrial Health of the American Iron and Steel Institute, and a member of the Board of Advisers of the American Association of Industrial Nurses. A present interest of his is the tropical diseases likely to be contracted by military men, and their sequelae and geograhphical distribution.

H. GLENN GARDINER, M.D., has been appointed Director of the Medical Department, Inland Steel Company, Indiana Harbor Works, effective June 1, 1953. DR. GARDINER joined the Inland Steel staff in the capacity of Assistant Medical Director on July 1, 1950. He was born at Geary, Oklahoma, in December, 1910; attended Oklahoma City University, 1928-1931, and received his M.D. at Oklahoma University School of Medicine in 1935. After an extensive practice in traumatic surgery and industrial medicine in Chicago, 1936-1942, he became Director and Chief Surgeon for Foote Brothers Gear and Ma-

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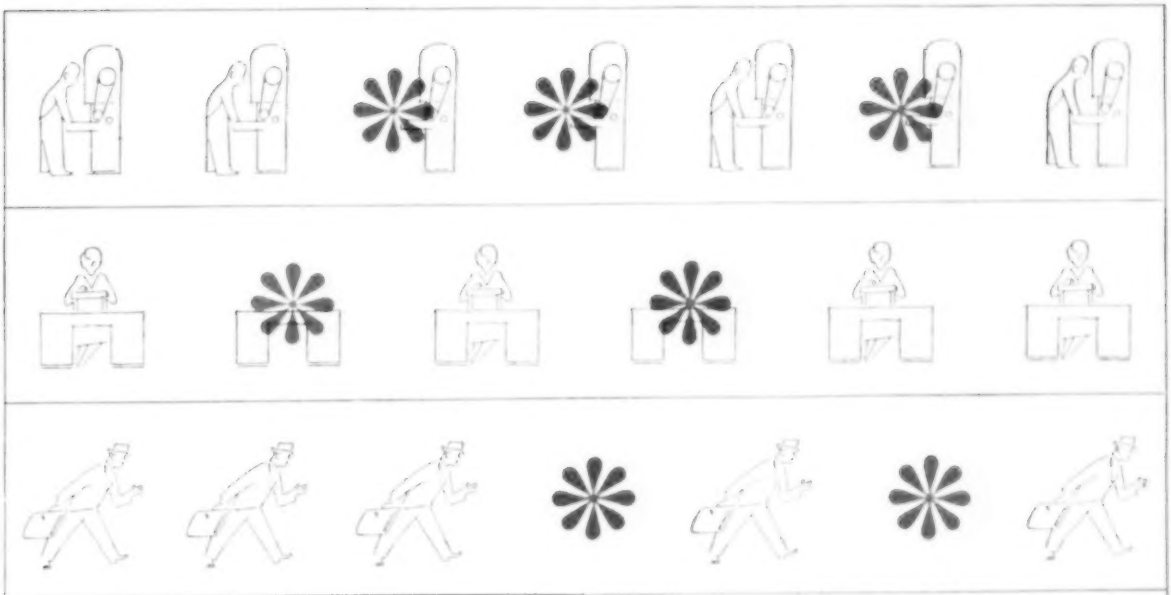

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chine Corporation, Chicago. Later he was Medical Director, Sears Roebuck and Company, Chicago. He is a member of the Industrial Medical Association (Director, 1952-54); the American Medical Association, and the Indiana and Lake County Medical Associations. He has published articles on numerous industrial medical subjects.

JAMES N. DEWANE, M.D., of Menominee, Michigan, has been appointed Medical Director of Libby, McNeill and Libby, Chicago. DR. DEWANE received his M.D. at Marquette University School of Medicine in 1944.

JOHN C. DUFFY, M.D., recently elected to IMA membership, has completed his Fellowship at Kettering Laboratory, Cincinnati, and is now identified with International Business Machines Corporation, at Endicott, New York.

NORVIN C. KIEFER, M.D., Director of the Office of Health and Special Weapons Defense, Federal Civil Defense Administration, is resigning to become Chief Medical Director of Equitable Life Insurance Society, with headquarters in New York City.

REAR ADMIRAL LESLIE O. STONE, is the new Commander of the National Naval Medical Center, Bethesda, Maryland, succeeding REAR ADMIRAL BERTRAM GROESBECK, JR., who becomes Director of the Indiana State Department of Health.

THRIFT G. HANKS, Medical Director, Boeing Airplane Company, Seattle, announces that his Medical Department has moved into new headquarters. The Central Medical Department is operated in addition to 11 dispensaries maintained by the Department in Boeing's Seattle and Renton plants. The Department operates three ambulances and employs 57 persons.

JOHN H. PRIBBLE, M.D., of Chicago, has been named Chief Medical Examiner for the Illinois Athletic Commission.

J. E. GRIFFITH, M.D., of Rockmart, Georgia, Lockheed Georgia Division's chief plant physician, has been promoted to the rank of Colonel in the Air Force Reserve.

JAMES T. CASE, M.D., F.A.C.S., Director of the Memorial Cancer Foundation, Santa Barbara, California, a pioneer in therapeutic radiology, recounted his early experiences in that field at the recent 35th Annual Meeting of the American Radium Society at St. Louis. DR. CASE is a charter member and Past-President of the Society. He recalled the work of DR. COOLIDGE in 1913, whose first hot cathode tubes he helped test; also the growing trend toward higher voltages, which he guided and studied, and his pioneering application of the 200,000-volt General Electric x-ray therapy apparatus.

—*X-Ray News*, June, 1953.

OTTO P. GEIER, M.D., who led the movement which gave Cincinnati children their first safe milk supply, has been appointed Chairman of the Crusade for Dental Health, which is seeking approval of water fluoridation in a November referendum. DR. GEIER, who is coming out of retirement to lead the campaign to gain a favorable vote for fluoridation, first came into the public eye early in the century when he led a battle to wrest control of public health appointments and activities from the Cox political machine. Later as city welfare director in 1912-13, he and his associates organized and systematized a Cincinnati department of charities and corrections. They cleared City Hall of political stooges holding jobs in the health field and replaced them with nonpartisan workers trained in the health and social work fields. His department brought milk supplies under supervision, and replaced the archaic House of Refuge for children in custodial care with centers based on modern thinking in child care. As Medical Director of the Cincinnati Milling Machine Company (1914-1935), DR. GEIER pioneered in industrial health and safety. His work attracted national attention, and he received an appointment as assistant surgeon-general of the United States Public Health Service. Equally interested in all phases of disease prevention, DR. GEIER worked for immunization against diphtheria, and prevention of typhoid. In 1918, when President of the Anti-Tuberculosis League and Day Camp Association, he started the sale of Christmas seals locally.

AT THE recent Annual Meeting of the California Medical Association at Los Angeles, the President bestowed gold buttons upon certain physicians who have been members for 50 years. DR. ROBERT T. LEGGE, of Berkeley, California, was one of the recipients.

JOANNA JOHNSON, R.N., observes this year, her 25th anniversary as Director of the Industrial Nursing Division of Employers Mutuals of Wausau, Wisconsin. The latest issue of the *Safety Newsletter* of the Industrial Nursing Section of National Safety Council carries this tribute to her: "You have touched and enriched the personal and professional lives of industrial nurses all over the country . . . . you have pioneered much that is accepted as a part of present-day industrial nurses' duties and programs."

—*Milwaukee Sentinel*, May 3, 1953.

THE INSERVICE TRAINING COURSE on "Instrumentation in Industrial Hygiene" scheduled by the School of Public Health and the Institute of Industrial Health, University of Michigan, for the week of February 15, 1954, at Ann Arbor, together with the Symposium, Clinic, and Exhibit of the scientific instruments used in all phases of industrial hygiene, has been postponed to May 24-27, 1954.

Recent Deaths

IRVING GRAY, M.D., F.A.C.P., at Brooklyn, New York, April 21. DR. GRAY was born in 1892; received his M.D. at New York University and Bellevue Hospital Medical College in 1913. He established a special practice in internal medicine in 1914, and became a consultant in industrial medicine and problems relating to industry and occupation. He was the author of numerous publications, many on lead poisoning. He served on the Postgraduate Committee on Industrial Medicine at Long Island College of Medicine; and was one of the early members of the Industrial Medical Association, in which he became a Fellow in 1940, and was elected to Honorary Membership on January 16, 1949. For many years he was Chairman of the Scientific Program of the New York State Society of Industrial Medicine.

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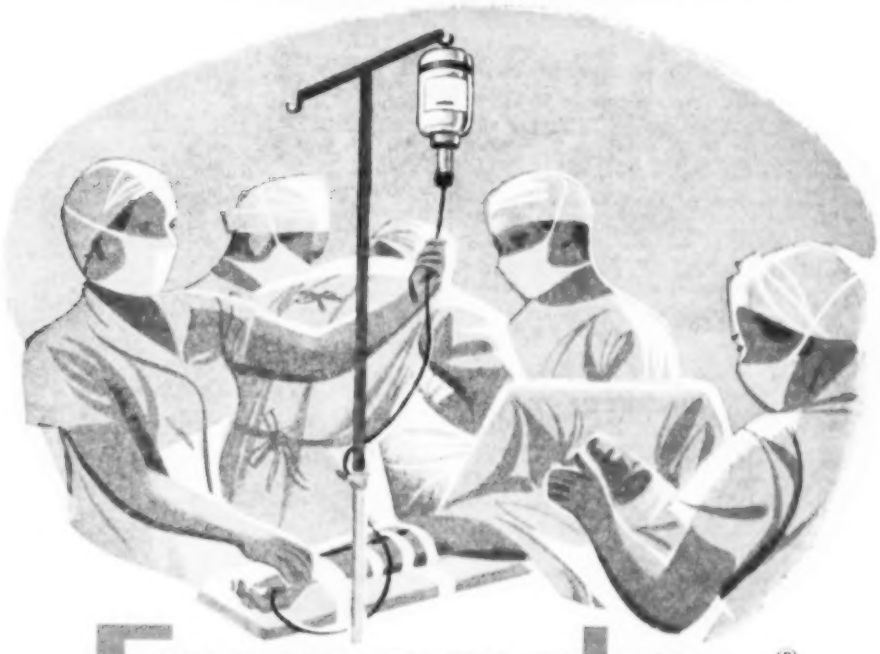

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Industrial Medical and Related Chronology selected and arranged by ROBERT T. LEGGE, M.D., F.A.C.S., Berkeley, California

"Laborin' man an' laborin' woman
Hev one glory an' one shame;
Ev'ry thin' thet's done inhuman
Injers all on 'em the same."
—James Russell Lowell

♌ = Leo — July 23-August 21 | ♍ = Virgo — August 22-September 21

1953

AUGUST

AUGUST (Circa)

1900—United State Government began officially to compile mortality statistics.
1902—Connecticut enacted a law requiring the absence of contagious diseases in bake-shop workers.
1905—At the Massachusetts Institute of Technology, Department of Health and Biology, Dr. C. E. A. Winslow instituted first course in industrial hygiene.
1905—Professor Fred Lee, of New York, investigated industrial fatigue.
1906—American Association for Labor Legislation organized, with Dr. John J. Andrews as Secretary, to conduct investigation, secure laws, and hold conferences.
1908—George M. Kober, of Washington, D.C., published an early book on Industrial and Personal Hygiene.
1909—New York first state to pass law specifying all applicants for work in compressed air must pass a physical examination by a physician.
1909—Lee K. Frankel, of Metropolitan Life Insurance Company, organized industrial nursing as part of the Welfare Division.
1910—The American Red Cross published its outstanding manual on First Aid, edited by Lt. Col. Charles Lynch, U.S.A.

☽ 1st Quar. ○ Full Moon ☾ 4th Quar. ● New Moon

1	☾ Sa	1825—William Beaumont, a U.S. Army surgeon, made scientific observations on Alexis St. Martin who was shot in the stomach. Through this fistula he observed how food was digested. *"Wisely and slow; they stumble that run fast"—Shakespeare*
2	♌ S	1904—Lemuel C. McGee, Ph.D., M.D., Medical Director, Hercules Powder Company, born at New Boston, Texas. Lecturer at University of Pennsylvania and research investigator for cardiac and gastrointestinal industrial diseases.
3	♌ M	1942—The Naval School of Hospital Administration of the U.S. Naval Department established at Bethesda, Maryland. 1859—Professor Douglas W. Montgomery, University of California, nationally known as an investigator and author in dermatology, born at Isingleton, Ontario.
4	♌ Tu	1891—Harold S. Diehl, Dean of Medical Sciences, University of Minnesota, formerly President of Students' Health Association, born at Nettany, Pennsylvania. Member of Council, National Emergency Medical Service, A.M.A. *"Nous are ysapyrnaic"—Pythagoras*
5	♌	1899—William W. Parker, President of the Academy of Medicine and the Medical Society of Richmond, Virginia, died at his home. Was a daring captain of the Parker Battery (Confederate) during the Civil War. *"Some griefs are medicinable"—Shakespeare*
6	♌ Th	1893—Frederick W. Slobe born in Orange City, Iowa. Formerly President, I.M.A. Specialist in traumatic and industrial surgery. 1952—Norbert J. Roberts appointed Chief Medical Officer, Pennsylvania Railroad Company, Philadelphia.
7	♌ Fr	1648—Joseph G. Duverney, a French anatomist, born. Gave the first scientific account of the structure, function, and disease of the ear. 1902—Raymond B. Allen, M.D., Ph.D., President, University of California at Los Angeles.
8	♌ Sa	1553—Geralamo Fracastoro, an Italian physician and poet, died. To him we owe the name syphilis. 1792—John Leake, a London obstetrician, as early as 1768 at the New Westminster Hospital described puerperal fever. He is buried at Westminster Abbey.
9	● S	1883—Warren F. Draper, Deputy Surgeon General, U.S.P.H.S., born at Cambridge, Massachusetts. Member Council of Industrial Health, A.M.A. Distinguished in control of contagious diseases and protecting industrial employees from venereal diseases.
10	♌ M	1911—Alvin A. Hubbell, founder of Medical Department, Niagara University, Clinical Professor of Ophthalmology, University of Buffalo, President, A.M.A. and American Ophthalmological Society. Inventor of electromagnet for removal of attractable foreign bodies from eye. Died.
11	♌ Tu	1903—Adolph G. Kammer, M.D., born at Darlington, Wisconsin. Formerly President, I.M.A. Professor of Industrial Medicine, University of Pittsburgh. 1673—Richard Mead, distinguished English physician, born. Author, and recipient of the Gold Headed Cane.
12	♌ W	1881—Roger I. Lee, member of the Medical Faculty at Harvard, born at Peabury, Massachusetts. Former President of A.M.A. *"And they die as equal death, the idler and the man of mighty deeds"—Homer*
13	♌ Th	1910—Florence Nightingale, the Lady with the Lamp, who raised nursing to a profession, died. 1865—Ignez Philip Semmelweis, the immortal who discovered the cause of puerperal sepsis, died at Vienna. *"The fear's as bad as falling"—Shakespeare*
14	♌ Fr	1846—Richard Ebing-Kraft, Professor of Neurology and Psychiatry at Strasburg, born. Famous specialist in criminal psychology, nervous diseases, and hypnotism. 1884—Julius F. Cohnheim, Professor of Pathology at Kiel, died. Noted investigator of sugar-forming ferments.
15	♌ Sa	1574—Eustachio Bartholommeo, Italian professor of Anatomy, died. He described the Eustachian tube and valve. 1815—Henry S. Paterson born at Philadelphia, Pennsylvania. Eminent physician, gifted speaker, and medical historian. Wrote biography of Samuel G. Morton.
16	♌ S	1892—Leonard Greenburg, C. E., Ph.D., M.D., specialist in occupational diseases, author of over 50 studies on industrial hygiene, born in New York City. 1893—Jean Martin Cuarcot, Chief at Salpetriere Hospital, Paris, died. Distinguished in mental and nervous diseases.
17	☽ M	1884—Joseph J. Woodward, Lt. Col. M.C., U.S.A., died near Philadelphia. Historian of the Civil War. Pioneer in photomicography and pathological histology. 1673—Regnier Graff died at Delft, Netherlands. Distinguished physician and anatomist.
18	♌ Tu	1876—Willis W. Hett, died at Vincennes, Indiana. A physician and educator; President of Vincinnes University and founder of Ashbury University. *"The art of medicine is to be properly learned only from the practice and exercise"—Sydenham*
19	♌ W	1819—William T. G. Morton, an American dentist who administered ether as an anesthetic at the Massachusetts General Hospital, born at Charlton. *"A knowledge of history is the best link between the Past and the Future"—Jules Paget*
20	♌ Th	1930—Dr. Johannes Ilberg died at Leipsic. The world is indebted to him for the most accurate chronology of the life of Galen who was born September 22, 130 A.D. 1937—Paul B. Hoeber died at New York City. Founder of the Annals of Medical History.
21	♌ Fr	1843—William Pepper, famous physician, professor of medicine and provost of the University of Pennsylvania, born in Philadelphia. 1901—Willard Machle, specialist and toxicologist in industrial medicine, born in Cincinnati, Ohio.
22	♍ Sa	1485—The Sweating Disease appeared in England. At Oxford University it killed most of the students. 1909—Rex H. Wilson, M.D., born at Hendryaburg, Ohio. Succeeded the late Donald B. Lowe as Medical Director of B. F. Goodrich Company, Akron, Ohio.
23	♍ S	1834—Hugh Owen Thomas, the gifted orthopedic Liverpool surgeon, born at Bodedern, Anglesey. Developed the Thomas extension splint. 1768—Sir Ashley Cooper born at Brookhall near Norwich, M.R.C.S. The best known London surgeon of his time.
24	♎ M	1133—St. Bartholomew's Day. Every centennial the Bartholomew's Fair is held at Smithfield, London, since this date. *"The desire for fame is of two kinds; to seek it as an end or to use it as a means —Ramon Y. Cajal*
25	♍ Tu	1836—William E. Leach, English physician, entomologist, and malariologist at the Natural History Department, British Museum, died of cholera at San Sebastian, Italy. 1904—William R. Pryor, Professor New York Polyclinic, and noted gynecologist, died at New York.
26	♍ W	1723—Anthony Van Leeuwenhoek died at Delft. His fame will live forever with biologists and bacteriologists. 1895—John J. Wittmer, M.D., born in Brooklyn. Past President, I.M.A.; elected Vice President, Consolidated Edison Company. Died May 19, 1951.
27	♍ Th	1743—Antoine L. Lavoisier, the immortal French chemist who was guillotined during the French Revolution, born in Paris. *"Make two grins grow where there was only a grouch before —Elbert Hubbard*
28	♍ Fr	1878—George H. Whipple, Dean of University of Rochester Medical School, born at Ashland, New Hampshire. Shared the Nobel Prize 1934 with Minot and Murphy in their researches with liver in pernicious anemia therapy. *"Glory is nothing but oblivion postponed"—Ramon Y. Cajal*
29	♍ Sa	1779—Baron Johan Jacob Berlius, noted Swedish Chemist, teacher of medicine, and pharmacy, born at Westerlosa. Discovered selenium, thorium, and cerium. Introduced a new nomenclature for chemistry and was one of the originators of the electrochemical theory.
30	♍ S	1854—The disastrous, lethal outbreak of cholera occurred in London. John Snow, a London physician, found that the disease was water-borne, from the Broad Street pump. A historic epidemiological investigation. *"To business we love we rise betime"—Shakespeare*
31	☾ M	1841—Edward G. Janeway born at Brunswick, N.J.; celebrated pathologist and diagnostician. Professor of Medicine at Bellevue Medical College, New York City. 1842—By Act of Congress the U.S. Navy Bureau of Medicine and Surgery established.

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Nutritional adequacy does not depend upon income. Even a high standard of living is no assurance of balanced nutrition. VITERRA—containing adequate proportions of Vitamins, Minerals and Trace Elements—is designed for those patients whose inadequately balanced diets do not provide their daily requirements of all essential nutrients.

PRESCRIBE Vi terra when you want to assure balanced nutrition for your patients.

Each capsule contains

Vitamin A	5,000 U.S.P. Units	Calcium	213 mg
Vitamin D	500 U.S.P. Units	Cobalt	0.1 mg
Vitamin B 12	1 mcg	Copper	1 mg
Thiamine Hydrochloride	3 mg	Iodine	0.15 mg
Riboflavin	3 mg	Iron	10 mg
Pyridoxine Hydrochloride	0.5 mg	Manganese	1 mg
Niacinamide	25 mg	Magnesium	6 mg
Ascorbic Acid	50 mg	Molybdenum	0.2 mg
Calcium Pantothenate	5 mg	Phosphorus	165 mg
Mixed Tocopherols (Type IV)	5 mg	Potassium	5 mg
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contact dermatitis

with dramatically different

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trade mark

52.5% **silicone** skin protective cream

Pro-derna protects sensitive skin against the ravages of soap, water, alkalis and numerous other household and industrial irritants.

CLINICAL TESTS prove that one application of *Pro-derna* protects the skin for hours against housewives' eczema, diaper rash, industrial dermatitis, etc. Non-irritant and non-sensitizing.

NON-GREASY, non-sticky; does not interfere with use of hands. Easily removed when not needed.

samples for your own or patient use... write...

In one oz. tubes

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division of Foster-Milburn Co.
DEPT. 1M 468 Dewitt St., Buffalo 13, N.Y.

when psychic stress

is the underlying cause of

BACK PAIN or HEADACHE

Edrisal* relieves the psychic stress

Edrisal's Benzedrine† component improves the patient's mood and creates a sense of well-being, thus relieving the depression that so often is the underlying cause of pain.

'Edrisal' relieves the pain

"'Edrisal' was more effective than any other analgesic previously used..."

Wells, R. L.: M. Ann. District of Columbia *20*:360, 1951.

Each 'Edrisal' tablet contains:

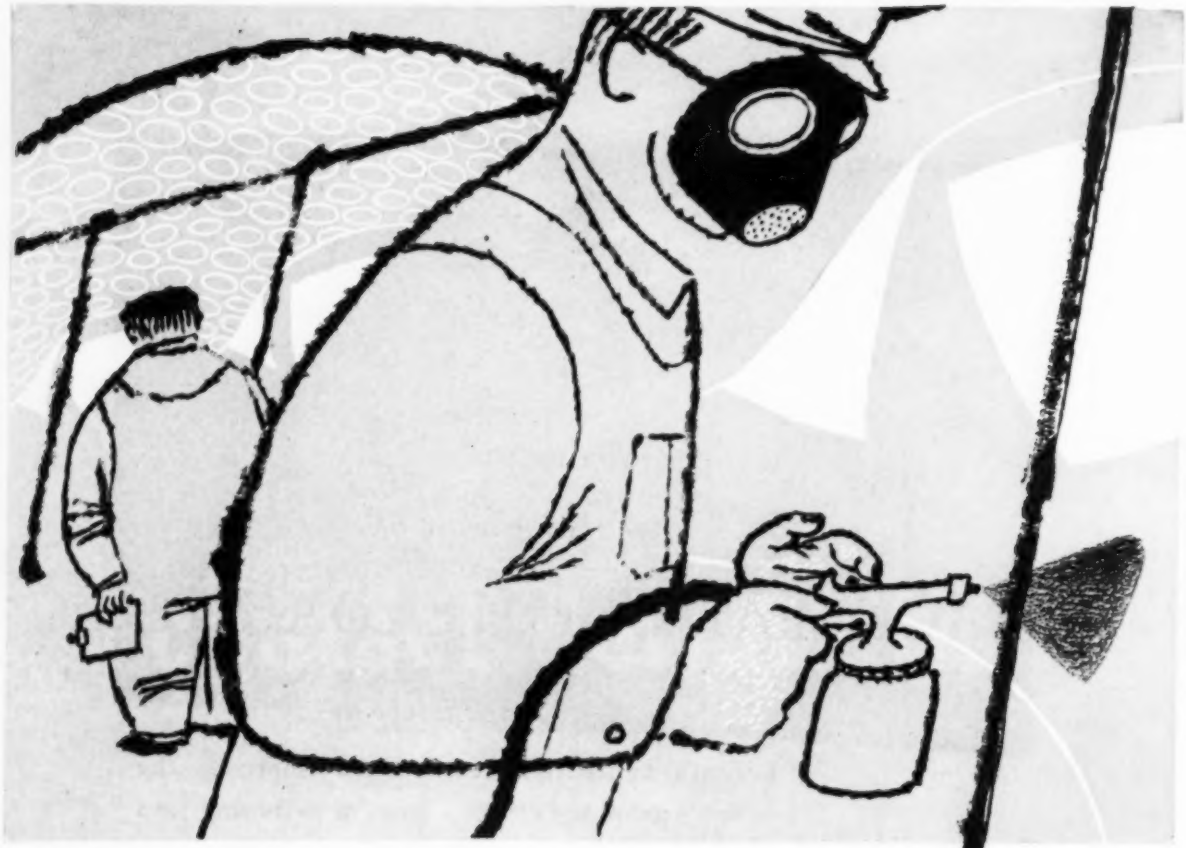
'Benzedrine' Sulfate (racemic amphetamine sulfate, S.K.F.)	2.5 mg.
Acetylsalicylic acid	2.5 gr.
Phenacetin	2.5 gr.

Be sure to prescribe 2 'Edrisal' tablets per dose to assure the full benefit of the 'Benzedrine' component.

Also available, for intense pain: 'Edrisal with Codeine ¼ gr.'

Smith, Kline & French Laboratories, Philadelphia

*T.M. Reg. U.S. Pat. Off.
†T.M. Reg. U.S. Pat. Off. for racemic amphetamine sulfate, S.K.F.



Greaseless, long-lasting SKIN PROTECTION

for industrial dermatoses and contact allergies

NOT removed by ordinary washing, COVICONE Cream offers the long-lasting qualities often desired in the management of industrial and allergic dermatoses. An entirely new formula, COVICONE is a special *plasticized* combination of silicone, nitrocellulose and castor oil. Applied to the skin, it forms an effective but invisible physical barrier against sensitizing and irritating agents.

Suspended in a vanishing cream base, COVICONE is easy to apply, is not sticky or greasy. To build up the protective layer, the cream is applied twice daily for 10 days to two weeks. Effective protection can then be maintained indefinitely with a single application every one or two days. COVICONE is indicated wherever skin protection is desired from environmental substances; there are no contraindications except premature application on wet, exudative lesions. COVICONE is available at pharmacies in one-ounce tubes with slip-off labels; also one-pound jars. Abbott

new plasticized cream withstands washing

COVICONE CREAM
TRADE MARK
(Abbott's Protective Skin Cream)

New professional dispenser for CURAD® plastic bandages

THIS NEAT STEEL WIRE DISPENSER UNIT FREE OF EXTRA COST

Here's the new plastic bandage that stays on in water—now in a convenient new professional dispenser.

Dispenser is built of sturdy steel wire with hospital white enamel finish, a useful and handsome fixture for your desk or first-aid table—holds professional dispenser pack of 100 CURAD plastic bandages.

CURAD, you know, is the successor to the old-style cloth bandage. It stays neat, stays clean, stays on—even when you wash. CURAD is elastic plastic—fits like your skin—even on hard-to-fit places.

To get your dispenser, contact your dealer today.

YOUR CHOICE OF OFFERS with FREE DISPENSER

No. 242 Offer—3 cartons ¾" x 3" $3.30
No. 252 Offer—3 cartons 1" x 3" $4.05

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A Curity PRODUCT

BAUER & BLACK

Division of The Kendall Company
309 West Jackson Blvd., Chicago 6, Ill.

New dispenser with non-slip rubber feet holds box securely, keeps CURAD plastic bandages at your fingertips.

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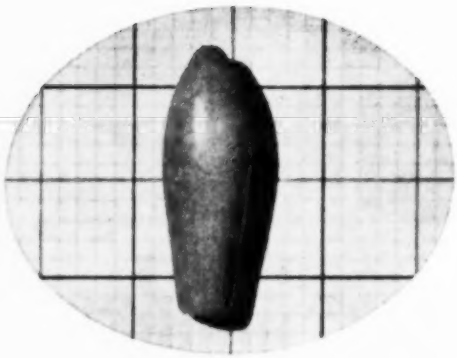
for easy insertion and retention



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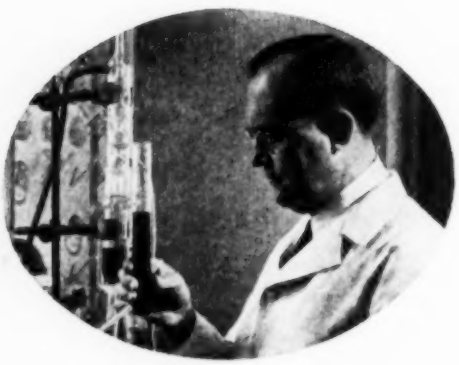
for prompt relief



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Hemorrhoidal Suppositories

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Also available:
WYANOID OINTMENT
tubes of 1 ounce, with rectal applicator

when psychic stress

is the underlying cause of

BACK PAIN or HEADACHE

Edrisal* relieves the psychic stress

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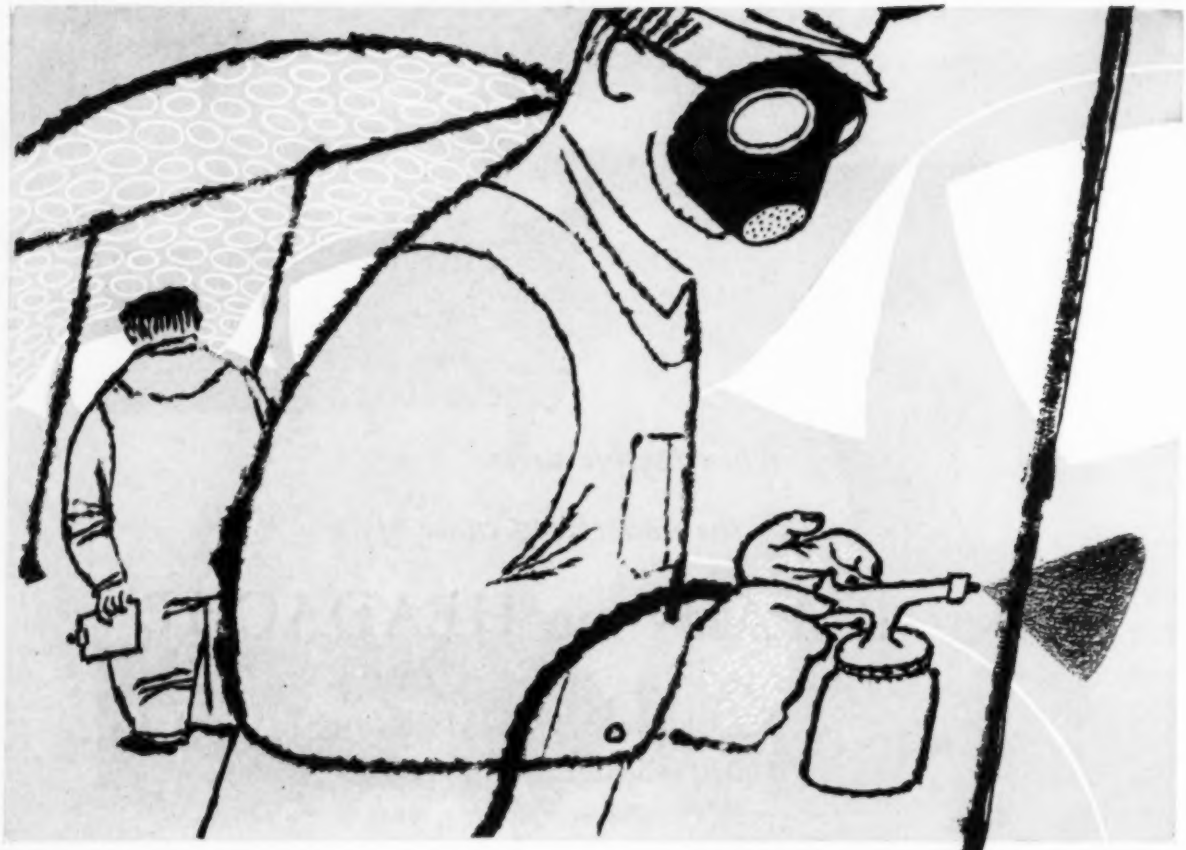

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New professional dispenser for CURAD® plastic bandages

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Dispenser is built of sturdy steel wire with hospital white enamel finish, a useful and handsome fixture for your desk or first-aid table—holds professional dispenser pack of 100 CURAD plastic bandages.

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New dispenser with non-slip rubber feet holds box securely, keeps CURAD plastic bandages at your fingertips.

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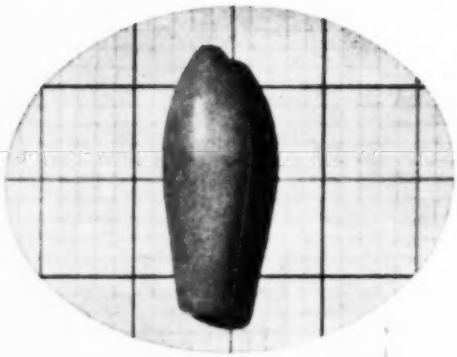
for easy insertion and retention



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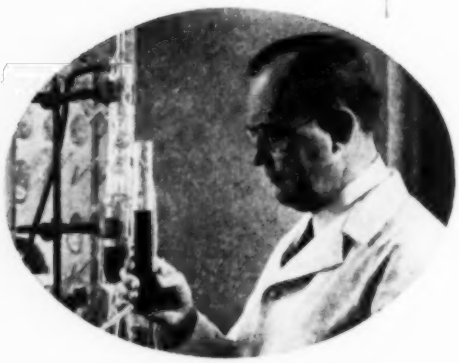
for prompt relief



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Hemorrhoidal Suppositories

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tubes of 1 ounce, with rectal applicator

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Each fluidounce contains:

Kaolin . . . . . 90 grs.

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the pioneer external cod liver oil therapy

in wounds (especially slow healing)
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DESITIN Ointment *proves in everyday practice its ability to ease pain, renew vitality of sluggish cells, and stimulate smooth tissue repair in lacerated, denuded, chafed, irritated, ulcerated tissues—in conditions often resistant to other therapy.*[1-3]

Protective, soothing, healing, Desitin Ointment is a non-irritating blend of high grade, crude Norwegian cod liver oil (with its unsaturated fatty acids and high potency vitamins A and D in proper ratio for maximum efficacy), zinc oxide, talcum, petrolatum, and lanolin. Desitin Ointment does not liquefy at body temperature and is not decomposed or washed away by secretions, exudate, urine or excrements. Dressings easily applied and painlessly removed.

Tubes of 1 oz., 2 oz., 4 oz., and 1 lb. jars.

write for **samples** *and literature*

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70 Ship Street • Providence 2, R. I.

1. Behrman, H. T., Combes, F. C., Bobroff, A., Leviticus, R.: Ind. Med. & Surg. 18:512, 1949.
2. Turell, R.: New York St. J. M. 50:2282, 1950.
3. Heimer, C. B., Grayzel, H. G., and Kramer, B.: Archives Pediat. 68:382, 1951.

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the safe, local analgesic action of PYRIDIUM promptly relieves these distressing urogenital symptoms due to cystitis, prostatitis, urethritis, or pyelonephritis. Convenient, oral dosage is compatible with antibiotics or other specific therapy.

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with new

"Super-"

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"Super-Stick"

"Super-Stick" a new development by Johnson & Johnson, makes BAND-AID Plastic Strips stick faster and *stay on better* than any bandage ever made. So important is this product improvement, that Johnson & Johnson has a number of patents pending on this development.

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A. S. Aloe Company has a fully staffed planning department to help you with layouts and suggested equipment lists for a dispensary of any desired size. There is, of course, no obligation on your part for our complete evaluation of your needs. Wherever your plant may be located, Aloe service and merchandise are standard; you are therefore assured of uniformity of quality and specifications. Illustrated below is a model dispensary consisting largely of Aloe exclusive equipment. Cabinets shown are the famous Moduline —Aloe exclusive steel sectional equipment, which, unlike custom-built fixed equipment, is capable of future rearrangement or expansion, or may be readily moved to new location. Moduline users include: Caterpillar Tractor, Cadillac, American Telephone & Telegraph Co. In planning a dispensary it is an important advantage that all equipment be available from one source. Please write for complete details.

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Root of the rheumatic fever problem

"The early and adequate treatment of upper respiratory tract infection of streptococcic origin almost eliminates the possibility of a rheumatic attack."[1]

Results most satisfactory

In a study of 1,204 beta hemolytic streptococcic infections, Breese reported that adequate penicillin blood levels, maintained for a week or longer, clear the throat of streptococci and prevent recurrent infections. Bicillin, wrote Breese, ". . . seemed to accomplish these results in the home most satisfactorily."[2]

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Worthy of attention is the fact that there were only 6 reactions in studies reporting 3,159 injections of Bicillin, an incidence of about 0.2%.[3,4] Because it produces penicillin blood levels lasting two weeks and longer, Bicillin therapy means fewer injections and consequently less trauma to the patient.

SUPPLIED: 1 cc. Tubex®, 600,000 units (approximately 600 mg.) per cc.

10 cc. multiple-dose vials, 300,000 units (approximately 300 mg.) per cc.

References: *1. Primer on the rheumatic diseases; prepared by a committee of the American Rheumatism Association. Special article: J.A.M.A.* **152**:323 (May 23) 1953. *2. Breese, B.B.: J.A.M.A.* **152**:10 (May 2) 1953. *3. Stollerman, G.H.: J.A.M.A.* **150**:1571 (Dec. 20) 1952. *4. O'Brien, J.F., and Smith, C.A.: Am. J. Syph., Gonor. & Ven. Dis.* **36**:519 (Nov.) 1952.

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CLEANS REALLY DIRTY HANDS *FAST*

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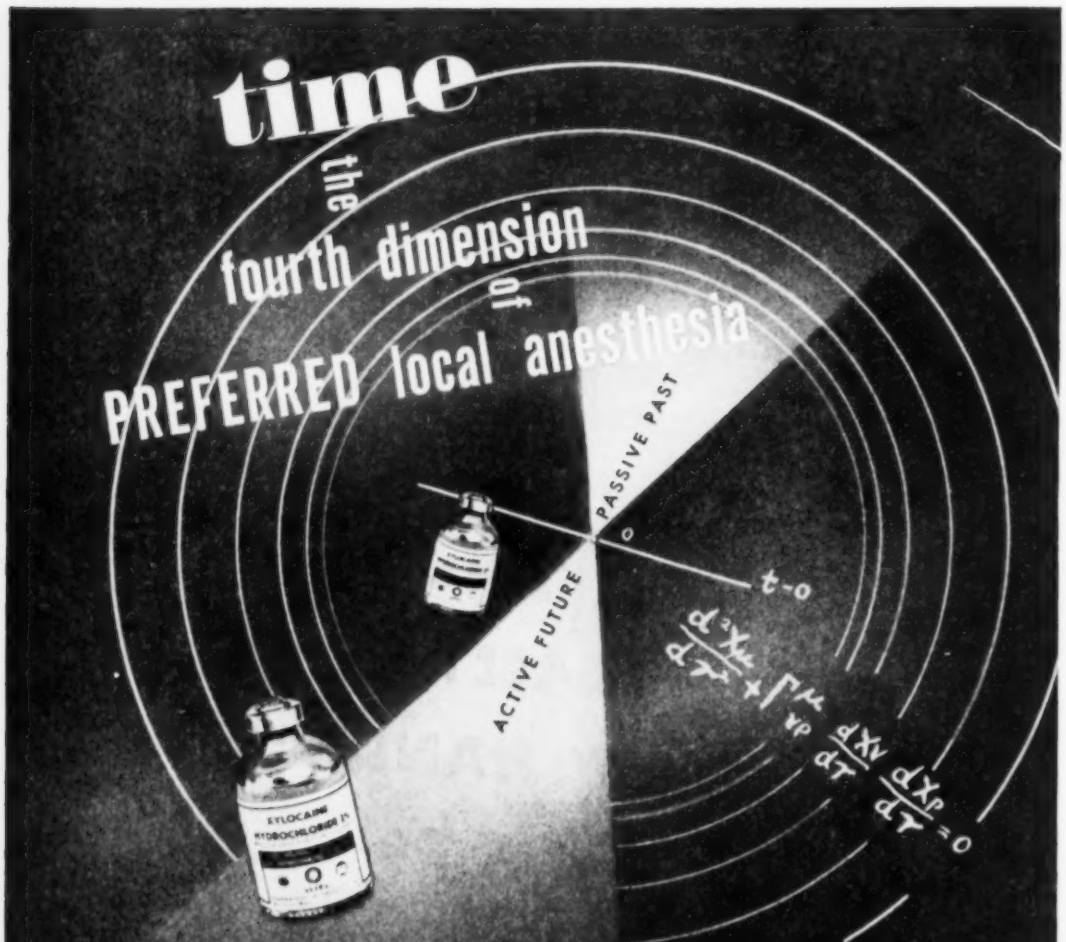
Over A Quarter Century of Service to Industry

time the fourth dimension of PREFERRED local anesthesia



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New OSTIC *has the creamy "feel" and workability you expect only in the higher-priced bandages*

New OSTIC (Code 23) has been developed to give you that superior "feel" as you work it in your hands—but without sacrifice of fast wet-out, cast strength and proper setting qualities.

The new OSTIC Plaster Bandage goes on smoothly, feels like moist velvet in your hands, sculptures effortlessly and packs solidly—with no sensation of grittiness. A real pleasure to work with.

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Inguinal Herniorrhaphy
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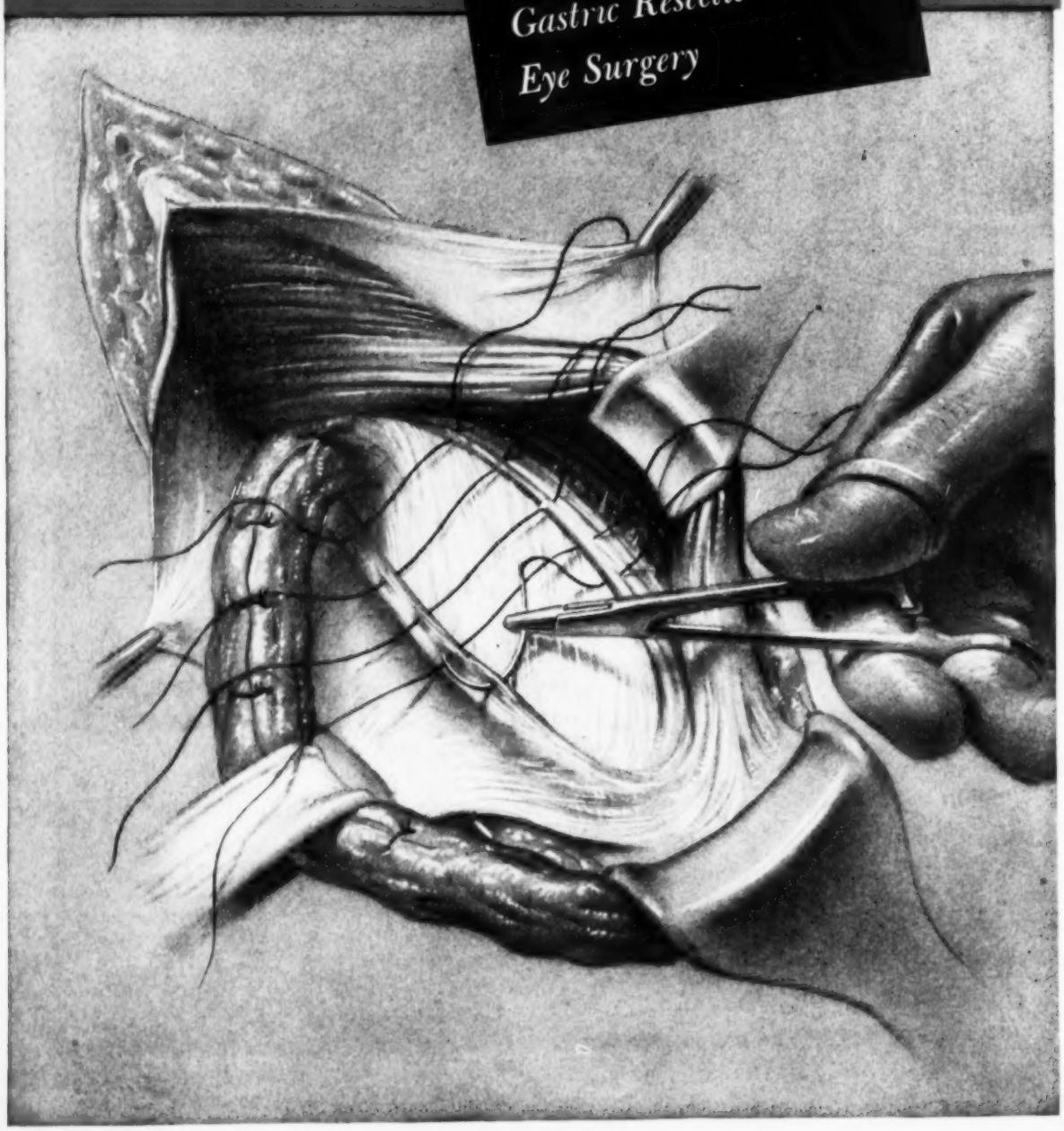

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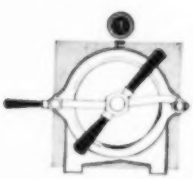
SURGICAL SILK

5 *ways better than ever before*

1. *Greater tensile strength:* One of the strongest silks ever created—smaller diameter sizes can be used everywhere to minimize trauma and foreign body reaction.



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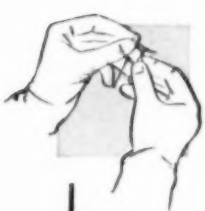

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5. *Doubly economical:* Low in original purchase price, new Anacap Silk is also low in individual suture cost because of its long sterilization life.

In sizes 6-0 to 5 on spools of 25 and 100 yards; sterile in tubes with and without D & G Atraumatic® needles attached.

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- Permits more liberal salt intake, enhances palatability of diet
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- Decreases the frequency of need for mercurial diuretics by potentiating their effectiveness
- May be lifesaving therapy for patients who have developed a resistance to mercury
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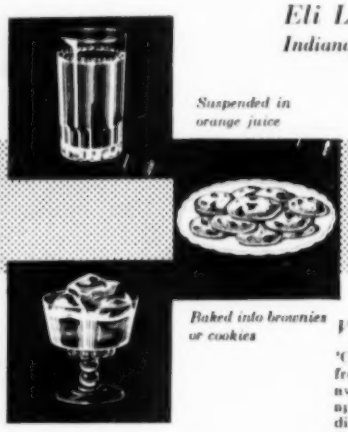

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INDUSTRIAL MEDICINE AND SURGERY
AUGUST, 1953

Radioisotopes in an Industrial Clinic

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THE FIRST practical application of the atomic energy discoveries in a form useful to our ambulatory clinic was the radioactive iodine uptake method for estimating thyroid activity. Testing basal metabolic rates in an ambulatory clinic has always been considered unsatisfactory. Determinations by the oxygen consumption method leave much to be desired when performed for the ambulatory patient who must travel long distances at an early hour in the morning to reach the clinic. Our experience with an average of 1,700 basal metabolic rate determinations annually confirms the impression that the lack of basal conditions due to the patient's exertion in travel by subway or automobile to the clinic, his emotional disturbance caused by his fear of being mechanically restrained by the basal metabolism apparatus, his feeling of urgency in keeping the appointment, and, in addition, his anxiety to undergo the test and return to work quickly so that he loses a minimum amount of working time, render invalid or at least questionable many of the test results.

The more rapid, inexpensive and objective methods of chemical determinations of blood components also leave questionable assurance of accuracy. Therefore the more recently available radioactive iodine uptake method was considered as a replacement for these methods.

The following Atomic Energy Commission requirements must be satisfied and the following personnel and facilities must be provided before a medical institution can use these materials:

1. An Isotope Committee and a staff member qualified to handle radioisotopes.
2. A laboratory with proper lead shielding for storing and handling the radioactive material. X-ray department facilities can be used.
3. Apparatus and a technician to dilute the material to give proper dosage.
4. Disposal facilities for radioactive iodine, providing storage of all waste material in shielded containers for a period of 30 days.
5. A Geiger counter or a scintillation counter to measure the uptake in the patient.
6. A stray radiation meter to permit policing of the working areas for spilled material.
7. A film badge or equivalent system to measure the radiation received by the technicians and the medical personnel.
8. A Consulting Physicist in periodic attendance to check the accuracy of all physical measurements.

Some of the armamentarium listed can be eliminated by obtaining the radioactive material from a pharmaceutical firm. This eliminates the dilution procedure, but still requires storage facilities and measuring and safety procedures. It adds the task of making frequent accurate estimates of the amount of radioactive material which will be needed, and may require calculation of decay of radioactivity in most cases where the particular dose cannot be administered at the precisely planned time.

In any event, the procedure described would require a considerable investment in equipment, space and personnel. In spite of this, the validity of the results of the test, and its independence of emotional and transient physical states, ease of operation and the accuracy of information on the patient's condition, justified the substitution of radioactive iodine uptake measurements for the basal metabolic rate determination.

Fortunately, at precisely the time this decision was reached in our Health Center, a solution to our major problems presented itself in the formation of a firm of Consulting Physicists who assume responsibility for many of the details enumerated. The institution was still required to form an Isotope Committee and obtain approval from the Atomic Energy Commission. However, the details of obtaining this approval were handled by the Physicists. In addition, this Consulting Unit provides the radioactive iodine in prepared doses which require only to be poured into a cup for administration. With each batch of test doses, a standard is provided.

The Physicists also provide a scintillation counter for measuring the uptake of radioactive material. The sensitivity of this instrument is

Fig. 1.
Technician handling sodium iodide with long-handled forceps.

such that a dose of only 15 microcuries of I^{131} is required for a test as against 40 to 50 microcuries when a Geiger counter is used.

The Physicists trained x-ray technicians employed by the institution in the administration of the dose and in making the subsequent measurements. The Consultants also provide film badge service for the control of exposure, both for technicians and medical staff, and a radiation monitor to check for spillage, as well as a collection service for the disposal of radioactive waste materials.

The clinic is required to provide only the patients, a part-time technician, and a qualified medical supervisor.

THE details of the examination as performed at the Union Health Center are as follows:

The test requires two visits to the Department of Radiology. These are arranged early in the morning so that the patient may lose a minimum of time from his employment. It is estimated that only one hour of working time is lost by the average patient undergoing the procedure.

At the first visit the patient is given a dose of 15 microcuries of I^{131} as sodium iodide. This is received in small bottles containing about 10 cc. of solution. The technician opens this bottle with long-handled forceps, pours the solution into a paper cup, and rinses the bottle twice with water. These rinsings are added to the solution in the paper cup. The cup is offered to the patient on a tray. The tray is held close to the patient by the technician while the patient drinks the solution, in order that any drippings may be caught on the tray. The cup is rinsed twice with water which the patient drinks. The cup is then thrown into a special waste-can by the patient and is not again handled by the technician.

The bottle which contained the radioactive material is kept in a lead safe, and the code number of the dose is recorded with the name of the patient on a work sheet. The circumference of the patient's neck is measured with a tape and noted on the work sheet. The total procedure takes less than five minutes.

Twenty-four hours later the patient returns to the clinic for measurements of his iodine uptake with a scintillation counter. Four different areas of the neck are counted, and the average count which corrects for the depth of the thyroid beneath the skin, is used for comparison with the standard. When the four fields have been counted, the patient is permitted to leave. Each field is counted for 50 seconds so that the patient's second visit is over in about five minutes.

A standard bottle of iodine, prepared at the same time as the sample given the patient, is now counted in a phantom neck of the same size as the patient's neck.

The bottle which contained the patient's sample is checked for residual activity, which must be

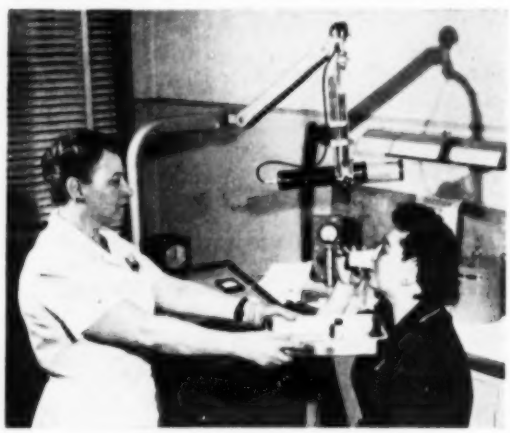

Fig. 2.
Technician holds tray close to the patient while she drinks the solution, in order that any drippings may be caught on the tray.

Fig. 3.
Measurements of iodine uptake with a scintillation counter.

subtracted from the standard. Then the ratio of the patient's measured activity to the corrected activity of the standard represents the patient's iodine uptake.

Any uptake below 15% is subnormal; from 15 to 35% normal; from 35 to 45% is equivocal and may be above normal; and any over 45% is definitely above normal and indicative of increased thyroid activity.

The total patient time consumed in this test is about 10 minutes. The technician's time per patient, including standard measurements and calculations, is this 10 minutes plus five minutes of calculations, making a total of 15 minutes.

To obtain similar information with far less accuracy by measuring the basal metabolic rate requires the patient to rest for 60 minutes, then requires two determinations of eight minutes each, plus time for adjustment of breathing tube and refilling of spirometer, making a total of at least 80 minutes of patient time. Technician's time is 25 minutes per patient. Owing to the variability of conditions met in clinic patients, many repeat examinations are ordered by the physician treating the patient.

The saving in time by use of radioactive iodine is 70 minutes for the patient and 10 minutes for the technician. The one disadvantage from the time standpoint is that the patient is required to make two brief visits instead of one prolonged visit.

The use of radioisotopes in an ambulatory clinic need not be limited to the simple procedure which the Union Health Center has chosen as a pioneer endeavor. The service can easily be extended to the localization of thyroid tumors, identification and mapping of substantial thyroids, and localization of thyroid metastases. Using the same or other radioactive isotopes, such as radioactive phosphorous, other tumors may be identified, liver function tests may be done, and studies of circulation time and blood volume may be performed.

If the therapeutic possibilities are to be considered as part of the function of an ambulatory clinic, there is available a means of treatment of thyroid, hematopoietic, reticulo-endothelial, pulmonary and prostatic neoplasms, to name only a few.

The usual enthusiasm which appears with the innovation of new materials has been shown in this institution's appraisal of its first experiences with iodine uptake. However caution should be exercised until more adequate experience has been gained.

Nevertheless, the success that has rewarded the first attempt to bring the benefits of the medical use of radioactive materials to the patient in an ambulatory industrial clinic warrants the hope that these benefits may be more widely extended in the future.

(275 Seventh Ave.)

Week End Athletes

DURING World War II a great deal was heard about the fanatical Japanese committing hari-kiri, a form of suicide in which the abdomen is slashed horizontally. A great number of our own folks will be committing suicide just as fanatically in the next few months. But they won't know it as they attempt to outdo each other on the golf course, the tennis court, the swimming pool or other play areas. The coroner's report will merely state, "Death due to heart failure." These victims of heart failure will be week end athletes. They are approaching or are in their early forties. They are the men and women who have not learned that the old body, and especially the heart, cannot take the pounding it did even a few years ago. If you are in this class, face the facts: You are growing older. Let brains replace the brawn. Learn your limitations and act accordingly. You'll live longer and be happier. How much exercise you should have after reaching the 40 mark is questionable. At the chance of sounding trite, I would say the best exercise at this age is "Pushing yourself away from the table." Our big problem seems to be how to impress the week end athlete that he must slow up. The man who works at his machine, bench or desk all week and then starts on a week end of strenuous exercise is courting trouble. First, he is not conditioned for it. Secondly, he finishes the week end tired and unrested—if he's that lucky. Exercise in limited doses is fine. But each man and woman must learn his or her limitations. Don't be teased into playing 18 holes of golf when you feel nine is enough. Don't play that extra set of tennis when you feel yourself tiring. Swimming is fine, but don't overdo. When it comes to exercise of any kind, go slow. You must condition your muscles and heart. As we grow older, this process requires more time because there is a decrease in elasticity of the muscles. By nature, I would be the last one to discourage recreation. I've enjoyed sports all my life. However, I've seen the effects of over-exercise, especially among men and women who were the stars in their day. They just wouldn't believe they couldn't "take it." With the approach of good weather, most of you are looking forward to a busy summer. This is fine. But for your own sake, I would suggest you do this: See your doctor first for a check-up. Discuss your general health with him and by all means take his advice.

—J. H. CURTIS, M.D., Medical Director, AC Spark Plug Division, in *GM Folks*, 16:5, 16 (May) 1953.

PRACTICAL PROPHYLAXIS FOR PULMONARY DUST DISEASE

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American Brake Shoe Company, Chicago

IF ONE had to discuss this subject in as few words as possible he might do so by saying that the problem resolves itself into a joint medical and engineering effort to provide a safe working environment. The logical approach is to prevent harmful dust from getting into the atmosphere rather than try to eliminate it once it has become air-borne. This means adequate exhaust ventilation to remove offending particles preferably at the source of production. Usually a study of each bad spot is an individual problem which requires expert handling.

Ordinarily exhaust equipment will have to be designed and tailored for specific jobs so that it does not interfere with the operator and/or production while doing an efficient job of dust removal. Exposure should be checked by frequent, representative dust counts and other air analyses to determine not only the atmospheric concentrations of dust particles per cubic foot of air but also their size and composition. It is a well established fact that some of the dustiest looking areas in a plant may actually be the least dangerous because the visible particles are so large that only an insignificant number ever reach the alveoli of the lungs. The smaller ones, under three microns in diameter, represent the "invisible" dust which is more dangerous. Recent investigation demonstrates that even submicroscopic particles which formerly were thought to pass in and out of the lungs with respiration may be retained in the alveoli in sufficient amounts to produce definite pathological change.

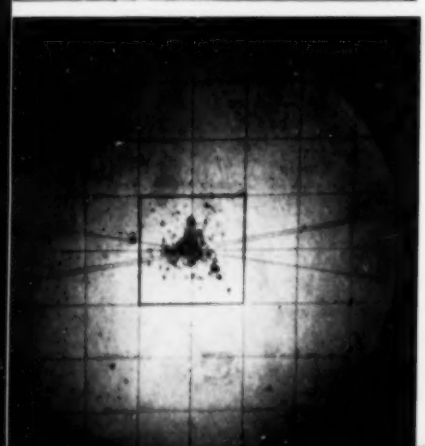
No program of dust control will be effective unless there is the closest cooperation between

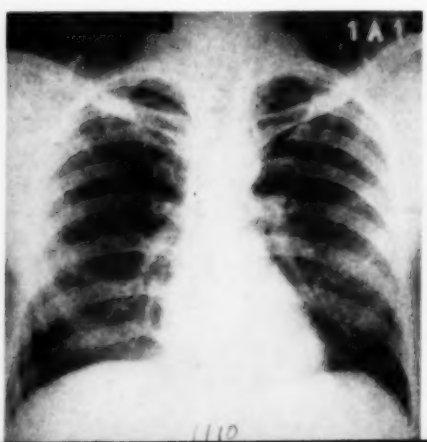
Fig. 1 (Left). Oxyacetylene Burning Operation. The removal of gates and risers from castings by the torch produces large amounts of dust and fume which are composed mainly of iron oxide. Pigmentation of the lungs by this radio-opaque material may produce nodular shadows in the roentgenogram in from three to eight years. These radiological opacities are often erroneously interpreted as silicosis instead of siderosis. Experimental, clinical and industrial hygienic studies have demonstrated that inhalation of this inert material does not cause silicosis or produce pulmonary fibrosis.

Fig. 2 (Below). A Konimeter air sample showing the fine sized particles of fume and dust generated by the burning operation. The space between the double line represents 5 microns. Such particles are readily retained in the alveoli of the lung.

Fig. 3 (Below, middle). Siderosis. A roentgenogram of the chest showing the effect of exposure of fume generated from this burning operation. Th main constituent of the fume is iron oxide and the pattern produced in the lungs closely resembles that caused by free silica. Although the similarity ends here, siderosis is frequently mistaken for silicosis.

Fig. 4. (Below, right). This photograph demonstrates "practical prophylaxis for pulmonary dust disease" by showing how the condition was adequately corrected. That the table and suction hood at the right make the working area safe has been demonstrated by air samples taken during the operation.





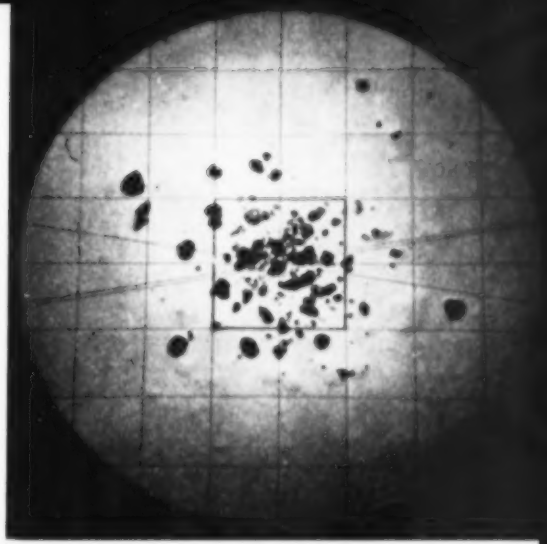
management, foremen, workers, physicians, and hygienists. The finest and costliest ventilating or exhaust equipment can be a total loss unless properly supervised and maintained.

In our experience, checking air flow through exhaust ducts in plants has sometimes revealed surprising things. For example, in one plant we were unable to account for high dust values at a grinding operation that appeared to be well exhausted, until our engineers discovered a pair of workman's overalls plugging the main exhaust duct.

Sometimes foremen who are under pressure to get out production will close their eyes to the obvious need for better maintenance, while workmen will do their best to circumvent ways and means provided for their personal safety. We have seen an employee tie a dirty handkerchief over his nose and mouth while welding when all he had to do was reach out and shift an efficient flexible suction tube a matter of six inches in order to capture the dangerous fume.

All the respirators in the world will not help unless used as intended. In the experience of most industries they are unpopular and in spite of their value under proper circumstances have fallen into disrepute in many areas. Too many people have used them as a compromise for adequate hygiene procedures or as an easy way out when facing an expensive or difficult dust control installation. Defections of this type are usually the result of poor supervision or lack of a good selling job on the part of those charged with the administration of the health program. Sometimes too, management needs a rude awakening in the way of increased insurance and compensation costs to realize the importance of the part it has to play. Elimination of dust from working places requires teamwork on the part of all concerned in the manufacturing process in order to obtain maximum dividends both financial and health-wise.

Efficient medical programs, of course, comprise one of the biggest factors in the prophylaxis of pulmonary dust disease. Preplacement and periodic physical examinations including satisfactory chest roentgenograms are the conclusive tests of the adequacy of control since in the final analysis we are interested most in what happens to the man himself. Regardless of cost, any installation for control of dust, no matter how scientifically designed, is an utter failure if the serial chest roentgenogram subsequently shows evidence of occupational disease.



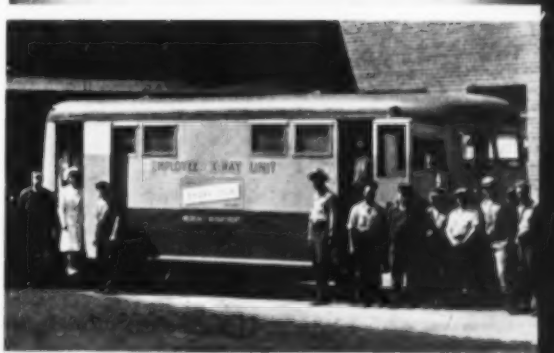


Fig. 5 (Top). A konimeter air sample taken at a shakeout operation showing the large size of the dust particles in contrast to those shown in Fig. 2. Most of these are well over 10 microns in diameter and as such are not readily respirable. If significant exposure exists over long periods of time, however, silicosis can result.

Fig. 6 (Second from top). Changes in the lung from exposure to dust containing free crystalline silica. Prevention consists of adequate exhaust equipment on shakeouts and other machines which cause this type of atmospheric contamination.

Fig. 7 (Third from top). One of the greatest practical prophylactic measures for pulmonary dust disease is the annual chest roentgenogram. American Brake Shoe's mobile unit is now in its fourth year of service, visiting all of the company's 57 plants each year. Employees welcome the arrival of the bus and participation in the surveys is excellent. Company-wise it is a most successful venture.

Fig. 8 (Bottom). Adequate plant illumination is a most important preventive measure and promotes good housekeeping as well as safety.

Fig. 9.
The importance of the Industrial Nurse and First Aid Department cannot be over-estimated in the pulmonary dust disease control program. Preplacement and periodic physical examinations are greatly facilitated by her efficient supervision.

The chest roentgenogram has been responsible for the discovery of new forms of pneumoconiosis which otherwise might have gone unrecognized. It is one of the greatest practical preventive measures in use today.

Over four years ago we purchased our own mobile chest x-ray unit to provide annual chest roentgenograms for employees of our 57 plants. The success of this venture is another story. Suffice it to say it has proved to be one of the best investments our company has ever made.

The foregoing preclusive measures are practical, and if they are used to best advantage they will adequately protect industry's biggest asset—its workmen.

Figs. 10 and 11.
Control of serious hazards from lead fume can often be attained by simple, inexpensive but practical measures. Figures 10 and 11 show how one operation was effectively handled by placing an ordinary metal cover over the ladle during transportation to the pouring area. These employees invariably walk "tandem" so that the man in the rear is directly in the path of the fume.

Jungle Rot

DURING World War II, the United States Navy Medical Corps selected a small island in the Pacific and there divided a large number of personnel into three groups. Sandals were issued to one group, low quarter Navy shoes to the second group, and combat boots to the third. The incidence of fungus infection of the feet varied in inverse proportion to the amount of shoe protection. Fungus infection occurred in somewhat less than 10% of those who wore sandals and in 100% of those who wore boots. Veterans are often heard to state that they contracted "jungle rot" while in the service, and that they still have it. "Jungle rot" may refer to any dermatologic disease seen in the tropics. The fact that dermatophytosis does develop there is not remarkable; but the condition has nothing to do with the jungle.

—From "Common Dermatologic Disorders That Can Be Treated by the General Practitioner," by M. F. ALLENDE, M.D., in *Kaiser Foundation Med. Bull.*, 1:2, 73 (April) 1953.

Post-Traumatic Neuroses

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Los Angeles

IT WOULD seem advisable to define some of the terms and concepts at the outset, since there is considerable confusion in the literature in this regard.

A neurosis may be thought of as a more or less persistent disturbance of nervous system functions, with emotional factors being primary in the causation. In other words, a neurosis represents a failure in adaptation to a series of emotional stresses. A post-traumatic neurosis is one that follows physical injury. Occasionally the term may be used in connection with an overwhelming psychological injury, such as the terror that accompanies a catastrophic experience, e.g., barely escaping from a flaming plane crash or the torpedoing of one's ship.

Because of the special symbolic importance that the head has, neuroses after head injury comprise the greatest problem. In the work that I have done as Independent Medical Examiner in neurology and psychiatry for the California State Industrial Accident Commission, the vast majority of the cases encountered involve the post-traumatic head syndrome. It is of paramount importance to differentiate the effects of cerebral concussion from the neurotic disturbances, although often this is not easy.

Consequences of Head Trauma

WHEN the head is struck a blow by a moving object, or when the moving head strikes a stationary object, the acceleration effect tends to drive the brain against its bony covering and may produce a shaking-up sufficient to cause cerebral concussion, or "commotio cerebri," as it is sometimes termed. Courville[1] classifies the degrees of concussion as follows:

1. Mildest form (first degree) consists of transitory motor weakness, dizziness or blurring of vision, but without impairment of consciousness.

2. Second degree concussion includes those instances in which individuals are only dazed or stunned after injury to the head, but do not lose complete contact with their surroundings.

3. Third degree includes those individuals who recover promptly (within the hour) after traumatic loss of consciousness.

4. Fourth degree concussion includes those who recover from the unconscious state more slowly, usually within two to six hours, which is too short an interval to be associated with physical damage, such as contusion, to the brain.

5. The next level (fifth degree) implies a sufficiently long period (over six hours) to suggest the possibility of cerebral contusion or cerebral edema as responsible in part for the patient's symptoms.

6. Concussion of the sixth degree is found in a group of patients who are destined to die of the cranial injury, but linger on for variable intervals of time.

7. The most severe degree of concussion is that which destroys the patient outright, without any evidence of physical damage to the brain.

The after-effects of concussion comprise the post-concussion syndrome. This rather characteristic picture is manifested by headaches, dizzy spells, irritability, a tendency toward emotional outbursts, great fatigability, restlessness, disturbed sleep, impaired concentration, and similar "nervous" symptoms. In addition there may be relatively minor neurologic signs such as a fine transitory nystagmus, irregularity and abnormal reactivity of the pupils, an abnormal response to vestibular tests, etc. An elevated pressure of the cerebrospinal fluid and an increase in its total protein content may be present. A delayed fall in the glucose tolerance curve may be noted. In addition, the electroencephalogram may reveal a non-specific type of slow dysrhythmia, particularly if taken within 24 to 48 hours after the head injury. Serial EEG studies will then show progressive improvement, as a rule.

Now, in contrast to concussion, what is the picture in post-traumatic neurosis? Schilder[2] lists four principal types:

1. Reactions in which terror and anxiety prevail.

2. Reactions of neurasthenic and hypochondriacal character.

3. Reactions of the hysterical type. (The conversion symptoms are very often based upon what has been termed "somatic compliance.")

4. Reactions in which social and compensation problems prevail.

The post-concussion syndrome cannot properly be termed a neurosis, but the anatomico-physiologic substrate which produces disturbances in brain functions and symptoms like dizzy spells and alterations in consciousness may facilitate neurotic reactions of the total personality. The organic consequences of head injuries may thus become the nucleus around which neurotic attitudes crystallize.

One important aspect in differential diagnosis is, of course, the degree of anxiety present in

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the patient with post-traumatic neurosis. Also the severity of the bodily symptoms seem out of all proportion to the original injury, which is often quite minor.

However, in patients with conversion hysteria, the anxiety may be latent rather than manifest, and thus the patient may seem to show a bland indifference to his symptoms. Frequently, the latter have a bizarre quality, such as shifting areas of anesthesia or an inexplicably peculiar gait.

In specific social settings such as occur in the workmen's compensation case, the question of "compensation neurosis" almost inevitably arises. This term may usefully be applied when the desire for cash compensation is the major, though often unconscious, force which keeps the symptoms alive.

Davidson[3] describes the case of a physician who had been adjudicated by the Veterans Administration as 10% disabled by psychoneurosis. He thus was receiving $15 a month compensation. His actual net income from his practice was well over $1,000 a month. When asked why he continued to claim this trifling monthly compensation, when it involved his being carried in the official records with the label "neurotic," the doctor's answer was: "This $15 pays my life insurance. Thus I know that whatever happens to me, my family will be protected." This was scarcely an adequate explanation, but it indicated that the small monthly sum had a tremendous symbolic security value to the patient—enough to override the traditional stigma of the "neurotic" label.

Sometimes in addition to the symbolic features of security and sympathy and attention derived from the compensation payments, the factor of the worker's conscious or unconscious resentments must be taken into account. By continuing to draw weekly disability compensation the patient may satisfy certain needs to "punish" the employer and the insurance company. Naturally, these attitudes are aggravated if the patient feels he has been "pushed around" or "given the brush-off" by the industrial physician or his employers. A vicious circle mechanism is set up, involving mutual hostilities on the part of all concerned.

Sometimes the question of malingering arises in the differential diagnosis following injury. Outside of certain insurance company physicians it seems to be the consensus of informed opinion that pure malingering is rare. By the term is meant the deliberate, conscious attempt to fabricate or imitate symptoms so as to bring economic gain to oneself. In a study of 100 cases of nervous sequelae following head injuries the neurologist Israel Wechsler[4] found only one instance of malingering. Some degree of conscious exaggeration of true underlying symptoms is of course more common.

A number of useful criteria for differentiating the malingerer from the post-traumatic psychoneurotic are offered by Davidson[3] and may be summarized as follows:

1. If a patient claims inability to work but seems to retain capacity for play and recreation (such as theater, television, card games, etc.) he is probably a malingerer, or at least there is a strong conscious overlay to his neurosis. This is inferred because the psychoneurosis affects most or all of the personal life of the patient, interfering with his pleasure as well as his zest for work.

2. Faithfulness in swallowing medicine, submitting to the prescribed injections or other treatments, and attending the required offices or clinics is common in neurotics but rare in malingerers.

3. If all the evidence indicates that the claimant, prior to the accident, has always been a responsible, honest, and adequate member of society, we can usually safely infer that he is not now a malingerer. However, the reverse is not true—namely, it is unsafe and unfair to infer that he is a malingerer simply because he has not previously been successful in life, since pre-existing psychoneurosis may well have interfered with the patient's work and social adjustment.

4. If the accident was a frightening one (even though not too serious), and if the content of much of the patient's thinking, dreams, and talking revolves about the details of the accident, he is probably a neurotic rather than a faker.

5. Evidence (such as by moving pictures, testimony of detectives, etc.) that the claimant uses paralyzed limbs or carries on allegedly lost functions when he considers himself free of observation is ordinarily proof of malingering, provided that the patient has asserted that he is never able to use the limb or perform the function. When the patient describes variable degrees of function, this may be a psychoneurosis.

6. If between accident and trial the patient had a long period of hospitalization and if aggravation of his symptoms began during that period, he is probably a neurotic, since malingerers are disturbed by what they witness in such wards and do not usually copy the symptoms they see there.

7. Carefully administered Rorschach and other types of "projection" tests may distinguish the neurotic from the malingerer. Reactions under sodium pentothal or sodium amytal narcosis are less likely to disclose the true nature of the problem than is often assumed.

8. Willingness to submit to surgical operation is fairly good evidence that the claimant is not a malingerer. Willingness to go to a psychopathic ward of a mental hospital provides substantial evidence of the claimant's good faith. A malingerer has a dread of such hospitals, as, of course, do certain psychoneurotics.

9. If the claimant (unless advised by counsel) refuses a bona fide offer of employment

which would call on abilities or skills in which he claims no disorder, we may suspect malingering. If the patient goes to work but does not perform too well, that is consistent with psychoneurosis.

10. Eagerness for re-examination, with manifestations of satisfaction at repeated examinations by different doctors, is more suggestive of neurosis than of malingering.

Pre-Traumatic Personality Factors

IT SHOULD now be apparent that the evaluation of the post-traumatic condition of the patient depends primarily on careful neurologic and physical examination, indicated laboratory tests, and psychiatric appraisal of the illness against the background of the total personality. The psychiatrist ordinarily takes a history not only of the illness in question but also of the patient's life story in longitudinal section. The history of previous nervous symptoms is of course of great significance, as well as frequent bodily symptoms for which no particular organic basis can be shown. In addition, the school and the previous work adjustment and the marital and social adaptation are all relevant. Sometimes a post-traumatic neurosis may occur in a patient in whom no prior nervous disorder, overt or latent, can be detected. Probably more often, however, there are some indications of prior neurotic tendencies at least.

To clarify the problem in the individual case of the relationship between the injury and the post-traumatic neurosis, the physician may employ the five-point differentiation of Ebaugh and Benjamin:[6]

1. The trauma was *the cause* of the psychoneurosis. This can usually be said when there are no signs (manifest or latent) of neurotic or mental disturbances prior to the injury. Also, it must be inferred that the neurosis would not have occurred now or later without injury. It is not often possible for the injury case to meet both these criteria.

2. The injury was a *major precipitating factor*. In this case it is inferred that a neurotic problem was latent but that the injury brought it into full bloom at this particular time.

3. The trauma was an *aggravating factor*. In such case an emotional disorder was clinically manifest prior to the accident, but the course of the condition was materially affected by the injury.

4. The injury was a *minor factor*. In this instance the trauma played only a minor contributing role to the well established psychoneurotic illness.

5. The trauma was and is *unrelated* to the psychoneurosis. In this case a period following the injury of, say, two to three months, exists before the development of the neurotic symptoms. One can then usually infer that the illness was not of real etiologic significance, although this is not a hard and fast rule.

Principles of Therapy

IN THIS paper only a brief discussion can be offered of the therapeutic management of the post-traumatic neurosis. First of all, good clinical judgment is necessary to decide the length of the period of bed rest following the accident, especially if a head injury. Since the post-concussion syndrome ordinarily makes its appearance when the patient resumes his usual physical activities, it is apparent that the patient should have adequate rest—perhaps 24 to 48 hours of such after a mild concussion. This should be followed by a graduated series of exercises to promote return of function. On the other hand, too long a period of rest tends to favor development of neurosis.

In the case of post-concussion symptoms like headaches and dizzy spells, the use of prostigmin may be helpful, or a series of intravenous procaine infusions. Just trying to let the symptoms subside of their own accord may foster neurosis and discouragement.

The psychotherapy of post-traumatic neuroses is basically the same as for any other neurosis. Various types of approach may be used, depending on the severity of the illness and on the skill and experience of the physician.[7] Chemical adjuncts to psychotherapy are particularly useful, such as sodium pentothal narcosynthesis and carbon dioxide inhalation therapy. Occasionally, a patient in whom depressive features are prominent will require electroshock therapy.

Enlisting the aid of the employer and of the insurance carrier is important, so as to reduce frictions and to avoid stirring up undue resentments in the patient, which would of course prolong his illness. Also, a reasonably prompt settlement of the claim helps to prevent a long, protracted course of the illness. As long as negotiations are dragged out, psychiatric treatment is seriously handicapped. Flexibility on the part of the personnel department in offering lighter work to the injured employee during his convalescence may speed his rehabilitation.

Summary

POST-TRAUMATIC neurosis may follow an injury to any part of the body, but the great majority are related to head injuries. This is partly due to the special symbolic significance of the head, from the standpoint of the patient's unconscious mind, and is partly due to the concomitant occurrence of the post-concussion syndrome. The latter, which is not a neurosis and which has an anatomico-physiologic basis related to the "commotio cerebri," commonly comprises headaches, dizzy spells, and various disturbances in cerebral function. These must be distinguished from neurotic symptoms, but also their persistence may form a nucleus around which neurotic symptoms crystallize.

Post-traumatic neuroses may be classified as: (1) terror and anxiety reactions, (2) neurasthenic and hypochondriacal states, (3) conver-

sion hysterias, and (4) reactions in which social and compensation factors prevail. Pre-traumatic personality factors are important, but sometimes no prior neurotic predisposition can be delineated.

Criteria for differentiation of malingering are offered. Also the problem of determination of the degree of relationship between injury and neurosis is discussed.

Principles of treatment of post-traumatic neuroses are briefly surveyed. Psychotherapy of an appropriate type is important, of course, but chemical adjuvants such as narcosynthesis and carbon dioxide inhalation therapy are particularly helpful. More active management of post-concussion symptoms may help prevent development of neurosis. A more scientific attitude on the part of employers and insurance carriers is urged, along with more prompt negotiation and settlement of claims. This last is helpful to all parties concerned.

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Orientation in Industrial Medicine

PHYSICIANS tend to be lax in diagnosis of occupational disease, declared Dr. Albert O. Seeler, of the Harvard Medical School, speaking recently at a two-day symposium on industrial medicine at the Harvard School of Public Health in Boston. Representatives of general practice from the New England States and New York participated in the meetings which marked the first time the American Academy of General Practice, the Council on Industrial Health of the American Medical Association, and the Liberty Mutual Insurance Company have combined to sponsor a meeting with the school. According to Dr. Seeler, failure to recognize occupational disease may result in improper therapy, continuation of the hazard with possible injury to other workers, and unnecessary economic distress to the patient. An improper diagnosis of occupational disease may lead to disheartening litigation as well as incorrect therapy. Diagnosis of occupational disease depends upon a careful occupational history with the customary good clinical history, and the physician must be familiar with the physical findings that are associated with specific occupational diseases. With new chemicals constantly introduced, it is the physician's responsibility to keep informed concerning the toxicology of new materials used by his company. Unfortunately, in many instances, new compounds must be used before much is known concerning their toxicity, and the physician has to protect his workers by frequent clinical examinations. Seminar lectures, which covered everything from the fundamentals of workmen's compensation to the role of the doctor in labor relations, were especially geared to assist physicians who have been asked to build part-time employee health services in industries in their communities, but who have little knowledge of the fundamentals of industrial medicine. With adoption of in-plant employee health programs by American industry rapidly increasing, medical schools are including lectures on this subject in order to create physicians with knowledge of the fundamentals of industrial medicine. Such lectures are incorporated in the undergraduate curriculum, while graduate schools of medicine and public health are building postgraduate courses of training. Despite this work, hundreds of physicians without orientation are being asked to enter industries in their communities to build part-time employee health services. Members of the American Academy of General Practice have often voiced their desire for opportunities to learn some of the special aspects of this growing field of medical practice, and it is to meet such requests that such seminars are planned. The two days of the Harvard seminar were divided into four sessions. The first dealt with industrial injuries, with emphasis on compensation laws, claims handling, and safety. The second took up occupational diseases, with special emphasis on problems of diagnosis and of evaluating the severity of a toxic exposure. The third, on industrial medicine, included aims and scope, industrial aspects, and the relationship of industrial medicine to private practice. The final session took up the role of industrial medicine in the country's problems of medical care. The meetings were intended as a pilot seminar and will be reproduced for the guidance of other schools and medical societies. Attendance at the sessions is accepted for credits toward the postgraduate study hours required for continued membership in the AAGP.

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Carcinoma of the Prostate Gland

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CARCINOMA of the prostate gland, according to a recent Public Health Report, is the third most common cancer. It is outranked in frequency by carcinoma of the stomach and of the skin. It has been estimated that carcinoma of the prostate gland is found in approximately 5% of all men who reach the age of 60 years. Some pathologists state that cancer is found in approximately 20% of all prostates which are removed for benign hyperplasia. It can be said that 20 to 30% of all men who complain of prostatism, will, in the final analysis, be found to have cancer of the prostate gland. This incidence is alarming and requires earlier and earlier diagnosis if these unfortunate men are to have the benefit of curative procedures.

The majority of prostatic cancer patients are between 60 and 80 years of age. Ten percent are between 50 and 60 years of age. Very few instances are found below the age of 50. Occult cancers of the prostate follow the same incidence in the stated age groups except more occult cancers are found after 80 years of age.

A clinical discussion of cancer of the prostate gland places the patients in two distinct groups. Group 1 includes those patients who have no urinary symptoms but in whom rectal examination reveals a suspicious infiltration or a small nodule. The number of patients in this group is very small and comprises about 5% of all prostatic cancers. Group 2 embraces the large number of patients in whom there may be urinary symptoms and an infiltrated, irregularly-enlarged, hard prostate gland with or without metastatic pain, and with or without clinical evidence of metastases. Those patients in whom the tumor has broken through the confines of the prostate gland but no distant metastases can be demonstrated, comprise about 20% of all prostatic cancers.

Thus, it is readily deduced, that 75% of all prostatic cancers have not only broken through the confines of the prostate when first seen but also are accompanied by demonstrable distant metastases.

Our greatest curative hope lies in that group of men whose early diagnosis depends on routine rectal examination by physicians who are doing periodic physical examinations. One cannot emphasize too strongly the importance of the family physician, or the internist, in this picture of early diagnosis of cancer of the prostate gland. There may be found a very small nodule in either lateral prostatic lobe, or more likely in the region of the posterior prostatic lobe or more properly called the posterior lamella. This latter region is most easily palpated by rectum and embraces the region between the verumontanum and the external urethral sphincter. If a suspicious area is detected by rectal examination, usually in the absence of symptoms, it is indicated to hospitalize the individual, make a perineal exposure of the questionable area, excise a portion of the nodule or infiltrated area for frozen section study and do a radical perineal prostatectomy if cancer cells are found. If no cancer cells are found, revision of the vesical neck can be done, if indicated. Sometimes there are no obstructive symptoms or obstruction and the perineal wound is closed.

Biopsy of tissue from these suspicious areas has been attempted by needle aspiration through the perineum, but the results have not warranted general and exclusive use of the method. Pathologists have found it difficult to offer a conclusive opinion from the small bits of tissue often recovered for study. A definite positive finding is the only finding of value.

It is also stated by some workers that suspicious symptomless areas of the prostate can be biopsied by transurethral resection. When one recalls that most of these early prostatic cancers originate in the compressed glandular tissue of, or near, the surgical capsule of the prostate gland, it is realized that the resectoscope loop may never reach the suspicious areas. Transurethral biopsy is ideal for the advanced carcinoma of the prostate gland.

The above points can be illustrated by the report of Mr. H. H. F., age 64, who was examined by a diagnostician in May, 1942, because of shortness of breath. Routine rectal examination revealed a small hard nodule in the right lateral prostatic area adjacent to the posterior lamella and probably incorporated within it. He had experienced nocturia two or three times for the past 10 years. His general physical condition was excellent. Blood studies and chemistry figures revealed nothing significant. Roentgen studies of the lower spine and pelvis disclosed no metastatic lesions. Observation cystoscopy revealed a moderate-sized glandular median prostatic bar. The nodule of the right lateral prostatic area could be an area of chronic prostatitis, a calculus or an early malignancy. There was no finding of prostatic calculi by roentgen ray.

Tissue from the indurated area of the right lateral prostatic area, obtained by perineal ex-

Presented at the Sixty-Fifth Annual Meeting of the AMERICAN ASSOCIATION OF RAILWAY SURGEONS, Chicago, April 7, 1943.

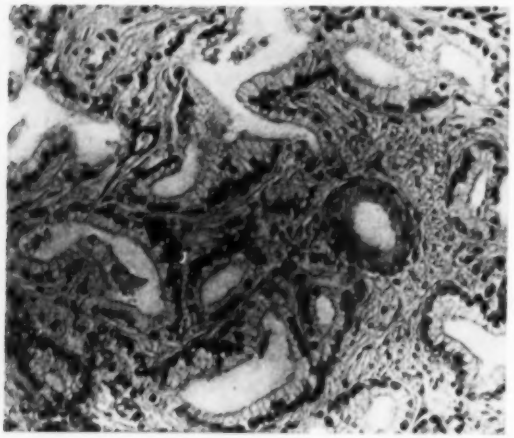

Fig. 1.
Small carcinoma of prostate gland.

posure and studied in a frozen section, revealed cancerous changes. A radical perineal prostatovesiculectomy was done. The patient made an uneventful recovery. He is now in his ninth postoperative year and is in good health. Rectal examination reveals a flat, soft and non-tender prostatic bed. The histological reports of the indurated area were as follows (Fig. 1): These tissues have a background of smooth muscle and fibrous stroma. Along one side are medium-sized and larger prostate gland acini with columnar lining cells. Forming most of the tissues are smaller tubules. Some of the small tubules with columnar cells are without an orderly structure. They extend as small cords into the stroma tissues. There are several medium or large acini with a hyperplasia of the lining cells into the lumen. The tissue pattern deviates considerably from that usually seen with glandular hyperplasia. The small tubules and compressed cords seem to have grown into the supporting stroma. This is a small carcinoma of the prostate gland.

This patient emphasizes again that early prostatic cancer is most likely to be discovered as an incidental finding in routine rectal examination of males. It is repeated that the most common primary site for prostatic cancer is the posterior lobe or lamella which is also the portion of the gland most easily palpated by the examining finger in the rectum. The cancer may be first felt as a solitary nodule, unless there is an associated hyperplasia or prostatic bar. The statement is found in the literature that any prostatic cancer which can be diagnosed by rectal examination is beyond any possibility of a surgical cure by radical removal. To this statement we most certainly take exception. We have seen quite a few relatively inactive lesions which have remained within the capsule for a long time and are easily palpated as hard nodules by rectal examination and have been completely eradicated by radical prostatectomy. However, we also know that extracapsular perineural lymphatic transmission of cancer cells may occur so early that chances for cure have passed long before the primary lesion can be definitely diagnosed except by miscroscopical pathological study. Even so, there seems to be some logical basis for complete removal of these small cancers, if technically possible even when extracapsular metastases are present. By such removal, all prostatic obstruction is removed and it is now known that associated metastases offer a better chance for hormonal control after the primary lesion has been removed.

That even the small nodule has already metastasized and the radical prostatectomy does not prevent a rapid recurrence is well shown in the following history. Mr. J. J., age 58, who was admitted to the hospital the seventh of September, 1945, complained that he had a nocturia three to five times for the past three years. There had been a marked day frequency for the past three or four months. His urinary stream had been growing smaller for the past 18 months and it was now difficult to start the act of voiding. There was no complaint of pain. He looked well. The rectal examination revealed a grade 3 prostatic enlargement, the right lobe being larger than the left and carrying a good-sized hard nodule. The residual urine was three ounces.

The remainder of the physical examination was without import. Roentgen studies revealed osteophytes of the bodies of the lower lumbar spine. There were no metastatic lesions of the lumbar spine or pelvis. Blood and blood chemistry studies were normal.

A perineal exposure was made. A biopsy of an indurated area from the superior pole of the right lateral prostatic lobe revealed cancer. A radical prostatovesiculectomy was done. The convalescence was uneventful.

The removed tissue presented prostatic hyperplasia with active cancer (Fig. 2). Some cells were in mitosis. There were invasions of tumor

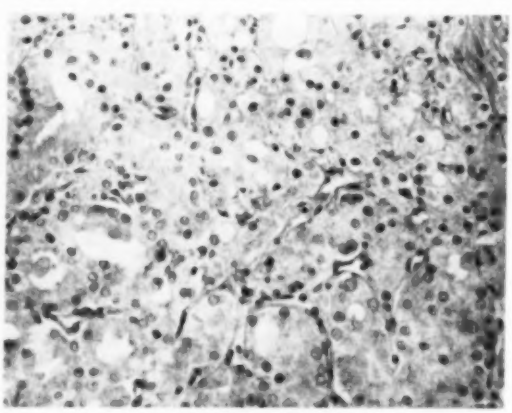

Fig. 2.
Carcinoma of prostate gland.

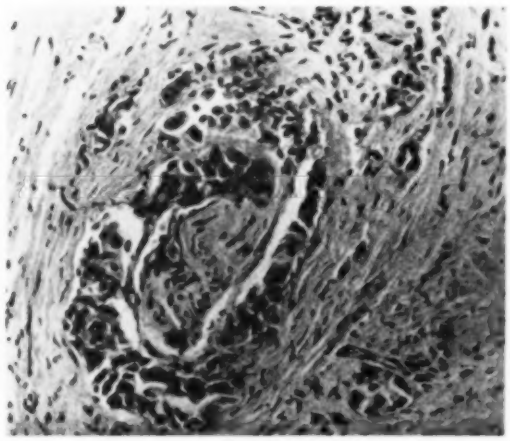

Fig. 3.
Perineural metastases from carcinoma of prostate gland.

cells around large nerve trunks (Fig. 3), especially of the capsule. Some of the perineural lymph channels were filled with cancer cells.

This patient had symptoms of prostatism, and a prostatic nodule which was hard enough to be cancer. Although roentgen studies excluded metastatic bone lesions, in less than 10 months postoperatively, in spite of adequate hormonal therapy and castration, this man began to have bone pain of the pelvic and perineal regions, loss of weight, lack of appetite and malaise (Fig. 4). Roentgen studies then showed many metastatic bone lesions of the lumbar vertebrae and pelvic bones. This patient died just 15 months after his radical prostatectomy.

The lesions which are most confused with early prostatic cancer are chronic inflammation, tuberculosis and prostatic calculi. For example, Mr. W. K., age 63, presented himself with the history that his family physician had discovered a nodule in the left lateral prostatic lobe three months previously during an annual physical examination. He had consulted two urologists. One had told him that the lesion was inflammatory because the expressed secretion contained many pus cells. The second urologist expressed concern over the probability of the presence of cancer. The only urinary symptom was nocturia one time. This man was in good physical condition except for a moderate hypertension. Rectal examination disclosed a rather limited nickel-sized infiltrated area high in the left lateral prostatic lobe. This area was not fixed. The blood picture was normal. Roentgen studies showed rather extensive osteoarthritis of the lumbar spine and normal pelvic bones. Infiltration in the lateral edges of the prostatic lobes speaks strongly for the diagnosis of chronic inflammation. A perineal approach to the prostate gland was made, the infiltrated area located, a piece excised and sent for frozen section study. No cancerous tissues were found. The prostatic capsule and wound were closed. The patient made an uneventful recovery. His chronic prostatovesiculitis has responded well to local management.

The miscroscopical study of some tissue obtained by perineal exposure from a 48 year old male who had a hard nodule in his upper left prostatic lobe showed the usual smooth muscle and fibrous stroma and small acini with cuboidal or low columnar lining cells of the prostate gland. A few of the acini contain corpora amylacea. The exudate cells are lymphocytes, plasma cells, mononuclear phagocytes and a few polynuclear leucotyes. At one place, there is a giant cell that suggests a Langhans' cell. Another lesion has more of the structure of a tubercle and contains several giant cells. Histologically the inflammation suggests tuberculosis. No tubercle bacilli were ever recovered from the urine. Roentgen studies of his lung fields showed a great deal of infiltration and a number of calcified areas. Ten years have now passed. The rectal examination of this man reveals the same findings as originally described. He has no urinary symptoms. He probably represents a healed prostatic tuberculosis.

In some instances, roentgen studies will not reveal prostatic calculi and a perineal exposure is necessary to exclude a cancer of the prostate gland.

Hugh J. Jewett, of Johns Hopkins Hospital, has analyzed 190 cases of radical perineal prostatectomy for cancer of the prostate gland. He makes the following conclusions: "Radical perineal prostatectomy is a relatively simple procedure. The operative mortality is about 3%, and the incidence of postoperative disability is low. In properly selected cases the five-year survival rate, without recurrence, is 51.3%. The 10-year survival rate is 28%. Until it can be demonstrated that the conservative management of a comparable group of microscopically-proved cases will yield as high a percentage of 10-year survivals, radical perineal prostatectomy remains the procedure of choice for early cancer of the prostate gland." We concur in these conclusions whole-heartedly.

The big majority, or about 75%, of patients who are first seen for cancer of the prostate gland have rather marked urinary symptoms, radiating pains either of the back, perineum or legs, and a markedly indurated nodular and often a fixed prostate gland. Prostatism with associated pain should cause suspicion of cancer at once even though there be no suspicious palpatory evidence of the lesion. It should be borne in mind that all prostatic cancers are not hard and fixed. A few are soft but cause pain. This pain of prostatic cancer, whether it be hard or soft, may be of a deep pelvic type or associated with urination. It has been shown pathologically that there is a marked tendency for

Fig. 4.
Metastases of bones from cancer of prostate gland.

Fig. 5.
Pathological fracture of femur from prostatic cancer metastases.

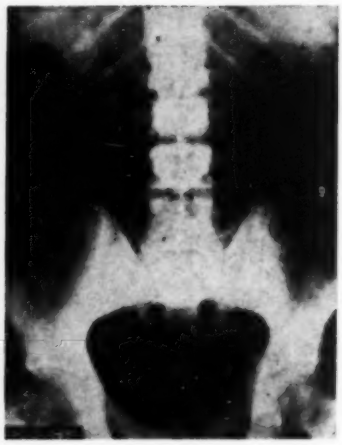

Fig. 6.
Metastatic ebonization and destruction of vertebral bodies.

early involvement of perineural lymphatics both intra- and extracapsular. Thus this symptom of pain is readily explained. It is recognized that the histological pathology in itself is not important except that most prostatic cancer is adenocarcinoma. Squamous cell carcinoma of the prostate gland occurs rarely. It has been noted by clinicians that a sudden acute retention in a man who has had few or no previous urinary symptoms, very often occurs in those with carcinoma of the prostate gland. Some of these men exhibit systemic symptoms of malaise, loss of weight and appetite, and a secondary anemia. Occasionally these symptoms are present due to a cancer of the prostate gland which has not yet produced urinary symptoms. The first sign of a new growth of the prostate gland in a small number of patients is a fracture or osseus lesion due to metastases from the prostatic cancer. Fig. 5 is the roentgen study of a 58 year old male, a railroad worker, who was admitted to the hospital with a fractured neck of the femur. There are obvious metastatic areas in his pelvic bones. The prostate gland was hard and fixed. Open operation on the hip plus estrogens and castration procured a healed fracture and useful leg. Fig. 6 demonstrates ebonization and areas of destruction in the vertebral bodies in a man with cancer of the prostate and very few urinary symptoms. Fig. 7 shows similar involvement of the bony cage of the thorax. Fig. 8A demonstrates a metastatic lesion of cancer of the prostate in the upper end of the humerus.

AT THIS point, it should be stated that much work has been done on the study of enzyme phosphatases of the blood serum in connection with carcinoma of the prostate gland. The enzyme acid phosphatase is found normally in high titer in the normal adult prostate gland. It is a content of adult prostatic epithelium. The gland cell of prostatic cancer possesses the physiological capacity for the production of the enzyme and phosphatase. So, it is a tissue specific substance, a marked increase of which is found in the blood serum *only* in prostatic carcinoma with dissemination beyond the prostatic capsule, especially into the lymph nodes or bone marrow spaces. It should be emphasized, however, that in some patients with prostatic carcinoma with definite bony and other metastases, the serum acid phosphatase values may be within normal limits. On the other hand, some patients with a prostatic cancer with no roentgenologic evidence of metastases are found to have significant elevations of the serum titer of this enzyme. According to Nesbit, "the discovery of an abnormal serum acid phosphatase level in the absence of evident metastases in a patient with prostatic cancer carries with it the implications of poor prognosis, for the patient with this finding has considerably less chance for a three-year survival than does the person

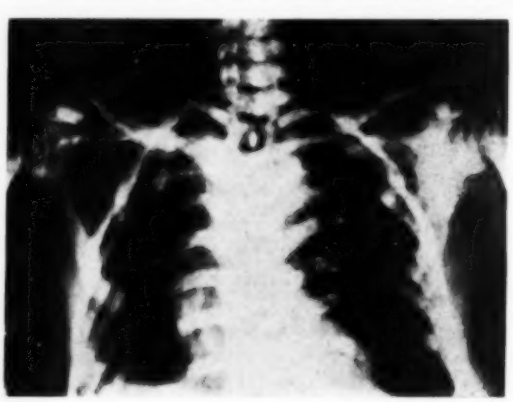

Fig. 7.
Metastic involvement of thoracic bony cage.

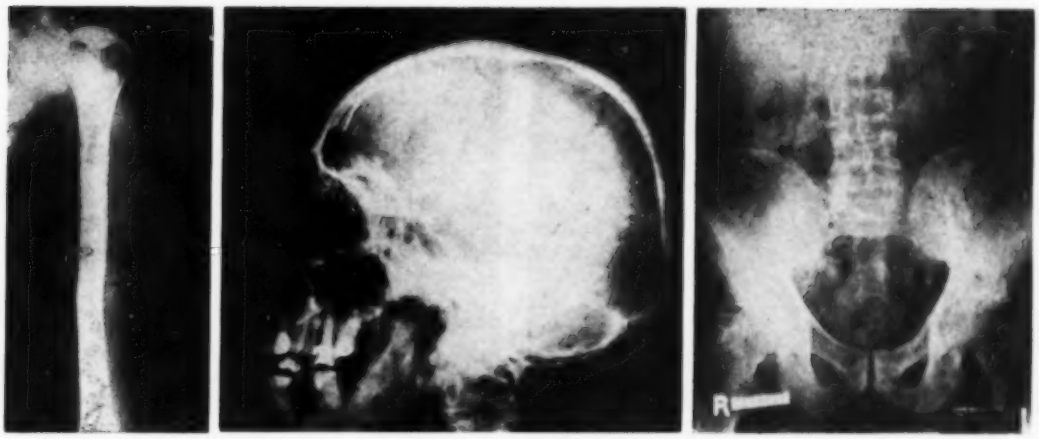

Fig. 8A. Fig. 8B. Fig. 8C.
Fig. 8A, left, metastatic lesion in upper end of humerus from cancer of prostate gland. Fig. 8B, middle, Paget's disease of skull. Fig. 8C, right, Paget's disease of pelvic bones.

in the same circumstances whose serum acid phosphatase is normal. The finding of a normal serum acid phosphatase value in a patient with metastatic prostatic carcinoma does not necessarily imply poor response to endocrine therapy by reason of the assumption of androgen independence on the part of the cancer cell, for, in general, these patients exhibit the same, or a greater, degree of benefit from treatment than do patients who have an elevated serum acid phosphatase level."

Alkaline phosphatase increase in the serum of man indicates osteoblastic activity or liver disease, hence is non-specific as far as carcinoma of the prostate gland is concerned. This increase is observed in other bone lesions such as Paget's disease and sarcoma (Figs. 8B and 8C). It is obvious then that both acid and alkaline phosphatase determinations should be made in a clinical study of carcinoma of the prostate gland. No other disease is known to show a concurrent elevation of both types of phosphatase. In the presence of prostatic carcinoma with elevated serum alkaline phosphatase and without evidence of gross liver damage, the possibilities are that bone metastases exist even though not yet evident by the roentgen ray.

Therefore, a completely studied patient, where carcinoma of the prostate is considered, should have both acid and alkaline phosphatase determination, but the clinician should be fully aware that the evidence obtained is only corroborative. However, investigators agree that a high titer of acid phosphatase (King Armstrong Units 5 plus) probably indicates the presence of carcinoma of the prostate gland with extracapsular extension. It is also agreed that high titers of both acid and alkaline phosphatases indicate the presence of carcinoma of the prostate gland with bone metastases. That many patients with all stages of carcinoma of the prostate gland may have normal serum phosphatase levels is generally known.

The cytological examination of the prostatic smear is helpful in the diagnosis of carcinoma of the prostate gland. The expressed fluid is collected on clean slides, fixed, stained by a standardized technique and mounted. Certain criteria have been established which enable one to differentiate malignant cells from normal cells or from cells altered by a non-malignant process. The pronounced cytologic changes occurring with estrogen therapy and response are a subject of great interest. The cytologic picture is completely altered by estrogen therapy. Malignant cells show degeneration and finally disappear. There is a profuse desquamation of squamous cells which otherwise are seldom seen in any numbers on the smear from the untreated gland. There is the appearance of a new cell containing glycogen which is seen only on the smear from the estrogen-treated gland and is characteristic of the therapy. It is of interest to note that many reports stating that malignant cells could not be found in a large percentage of smears from proved cases of carcinoma of the prostate were based on estrogen-treated cases. This is not surprising, since, as described above, the malignant cells very often undergo degeneration or disappear entirely. It can be concluded that the prostatic smear offers a reliable adjunct to the diagnosis of prostatic carcinoma, and is a means of detecting an occasional case which is clinically unsuspected. It is also suitable for assaying estrogen response.

There is the occasional patient who has pelvic pains, loss of weight and appetite and no urinary symptoms. His prostatovesicular bed feels benign and is not enlarged. Phosphatase levels are normal. Cystoscopy affords no positive findings. T. P., age 48, was such a patient. Sternal puncture (Fig. 9) revealed nests of prostatic

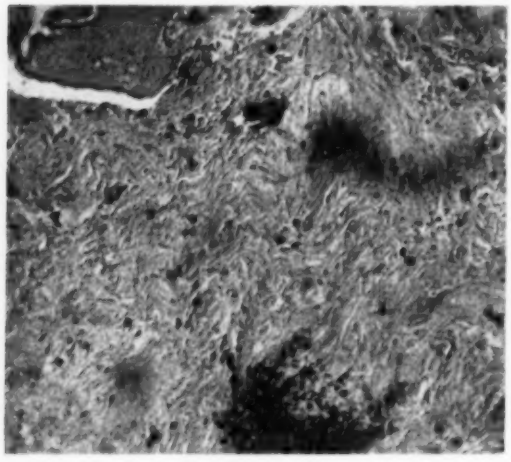

Fig. 9.
Metastatic cancer cells from prostate gland in sternal marrow.

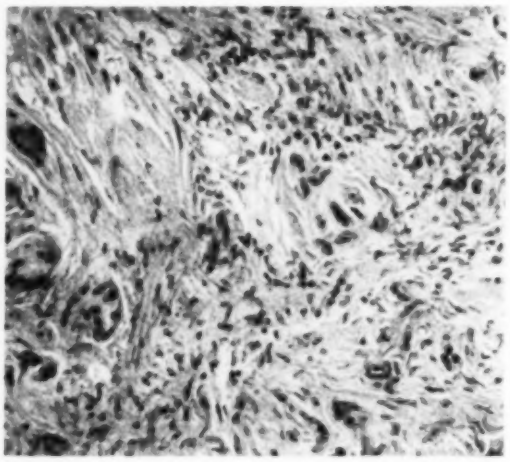

Fig. 10.
Cancer of prostate gland which was soft to palpation.

cancer cells. Prostatic tissue was obtained by transurethral methods and revealed definite prostatic cancer (Fig. 10). Castration and estrogens afforded relief of all pain, return of appetite and gain of weight.

THE treatment of this group of patients should correct the vesical neck obstruction, if present, improve the general condition of the patient, and control the growth of the cancer. Twenty-five years ago, if a cancerous prostate were producing obstructive urinary symptoms, a cystotomy was done and the patient treated palliatively with opiates until he died of urosepsis or some concurrent disease. About 1931, transurethral prostatic resection became popular to relieve the bladder neck obstruction from cancer of the prostate gland. It was realized that the growth would rapidly refill the prostatic urethra and repeated transurethral resections would be necessary. It was also realized that it would still be necessary to use many drugs and procedures to control metastatic pain. About 10 years ago, workers discovered that castration, either surgical or by roentgen rays, improved the general condition of the prostatic patient, caused the prostatic cancer to recede in size and to soften in consistency and the metastatic pain would often disappear or improve. The metastatic bone lesions would improve or disappear. The obstructing cancerous prostate gland would atrophy so much in some instances that revision of the vesical neck would not be necessary to relieve obstruction. Hormonal studies soon revealed that maintenance doses of estrogens produced a chemical response similar to that produced by castration in most cases.

With the above facts in mind, the first prerequisite to the treatment of this large group of patients is a positive diagnosis of cancer of the prostate gland. This can be done best by a study of the prostatic tissue which is removed through a perineal biopsy. This positive diagnosis will obviate the unnecessary use of estrogens and the promiscuous use of castration.

Today there are two distinct opinions about the treatment of these obvious prostatic cancers. One group of workers advise correction of the vesical neck obstruction by transurethral resection, with an immediate bilateral orchiectomy, hormonal bombardment with large doses of an estrogen and a course of deep roentgen therapy. There is no doubt that this course of action permits a longer survival and a more comfortable life. It is not always easy to sell the patient such a plan of treatment. The other group of workers advise a transurethral revision of the vesical neck and the administration of a daily maintenance dose of an estrogen. If the metastases or the metastatic pain cannot be controlled by the estrogens or the general condition of the patient is downward, a bilateral orchiectomy is done and a course of deep roentgen therapy is given.

There is now a third course of action available. Endocrines can be administered until the prostatic cancer is no longer palpable. Then a radical perineal prostatectomy can be done. Quite a few patients lend themselves to this course of action. It is thought that the hormones will prolong life longer when as much of the primary lesion has been removed as is possible.

A few workers have administered the hormones to these advanced prostatic cancers until the maximum hormonal effect has been obtained, then do a complete viscerectomy of all involved organs. I have had no experience with this.

It is generally agreed that all of these patients who do not lend themselves to radical surgery, should have bilateral orchiectomy and adequate doses of estrogen.

A most dramatic response is seen after orchiectomy of patients with the far advanced carcinoma with metastases, cachexia of malignancy, secondary anemia and imminent death. It is not uncommon to see this clinical picture change immediately after orchiectomy to one of progressive improvement. There is relief of pain, gain of weight, return of appetite and a return to normal ways of life and work. This result can be obtained in no other way, in our experience. The maximum result is obtained by the follow-up use of maintenance doses of estrogen postoperatively.

It is generally known that if one of these patients is given an estrogen and then stops its use, resumption of the estrogen will never again be as efficacious as had he continued its use without a rest period. The occasional patient is intolerant to estrogens. After a four to 13 day course of Cortisone (150 to 200 mg.) some of these patients tolerate estrogens very well.

There was a tendency for a while, to increase the dose of estrogens. This has been carried to the astounding dosage of 30 mg. of stilbestrol a day. The clinical change does not warrant such dosage. Not only were there no important increased benefits, but the side effects of painful and enlarged breasts, ankle edema and gastrointestinal disturbances soon caused the general return to maintenance doses usually equivalent to 2 to 3 mg. of stilbestrol a day. Experiments on rats and mice, using large doses of stilbestrol, have clearly demonstrated liver cell damage, also hypertrophy and dilatation of bile ducts.

In the occasional patient, castration and endocrine therapy will not control the pain from prostatic cancer. A series of deep roentgen therapy treatments will often give prompt relief from this pain. A few workers have applied deep roentgen therapy to the pituitary gland to obtain relief of pain in prostatic cancer.

In patients whose metastatic pain is bothersome, the administration of cortisone, 25 to 50 mg., B.I.D., affords relief and comfort from the pain. The rationale of this procedure is based on the reduction of edema of the nerves.

In the past few months, a few workers have been doing bilateral adrenalectomies on patients with prostatic cancer whose progress is not stopped by castration and estrogens. The immediate operative mortality is not great but the late operative morbidity is high because of physiological and metabolical disturbances. Fifty to 75 mg. of Cortisone a day are required for these patients as long as they live. The adrenals are removed to exclude their production of an androgenic cancer agent. We reserve this procedure for the advanced prostatic cancer patient whose pain is not controlled by estrogens, orchiectomy, roentgen therapy or cortisone. The progress of the cancer is not stopped but the relief of pain is very dramatic. Some of these patients are rehabilitated enough to resume work.

Flocks, at the University of Iowa, has been experimenting with interstitial radiation of inoperable carcinoma of the prostate gland which shows no evidence of distant metastases. He uses the radioactive isotope, Au^{198}. A cystotomy is done and the solution is injected under vision. Two millecuries per gram of estimated cancer tissue are injected. In this dosage, the highest use of the Beta radiation is obtained. If a larger dosage is used, the destructive Gamma component becomes of increasing importance. His follow-up studies on the first 100 cases, followed from three to 18 months, show the following points of interest: (1) Negative biopsies have been obtained in a significant number of patients. Clinical arrest has been obtained in 48 cases. (2) With improvement in technique, particularly the use of the pressure syringe, the utilization of natural septa and fascial compartments to aid in the distribution of the material, the avoidance of long needle injections, and the diminution of the volume of material used, the incidence of the complications, particularly the rectal difficulties, have been decreased tremendously. In the first 50 cases, 24 complications occurred. This is to be compared with an incidence of four complications in the second 50 cases. (3) Secondary injections through a perineally placed needle are of value for the destruction of nodules which were not completely destroyed at the first sitting. There is no question that tremendous destruction of the tumor, and in some cases, apparently its complete eradication, has occurred, and secondly it is possible to give intensive radiation to carcinoma of the prostate without producing quantitatively the complications which have occurred in the past. It is believed this method of therapy has merit but should be confined strictly to teaching and experimental centers.

A word should be said about the management of the patient who has had a transurethral revision of his obstructed bladder neck and the removed tissue shows cancer cells, when he was thought to have a benign gland. This state of affairs is referred to as occult cancer of the prostate gland. If the patient is in his seventh or eighth decade of life, it is sensible to give him a maintenance dose of estrogen as long as he lives. In the younger old men, such a patient should have an immediate radical perineal prostatectomy and maintenance doses of estrogens as long as he lives.

There is a group of patients in whom the biological equation allows the cancer of the prostate gland to grow slowly and they live their normal span of life in a fairly comfortable state. In the light of our present knowledge one could suspect that these new growths are held in check by a favorable hormone reaction or that the growth is slow because the stimulating hormones are lacking. It is a well known fact that many of

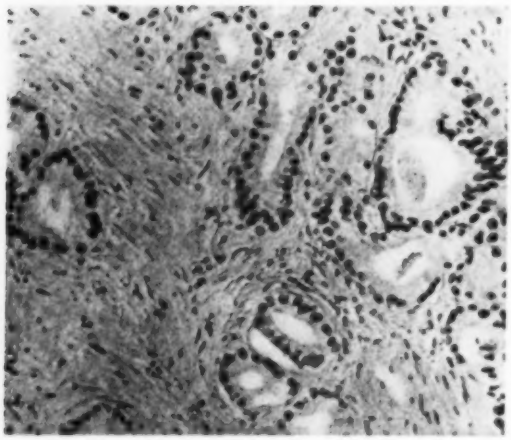

Fig. 11.
Cancer of prostate gland. Patient has lived 13 years with no hormonal treatment.

these prostatic cancers in men, who are in the seventh and eighth decades of life, are very slow-growing and metastasize very slowly. These facts must be considered when one talks of prolonging life with castration and estrogens. Fig. 11 is the microscopic slide of glandular carcinoma of the prostate gland of a patient who refused to take estrogens because they caused constant nausea. He has been alive 13 years since his prostatic operation and is now 87 years of age and feels fine.

It is a fact that most men with advanced cancer of the prostate gland certainly finish their span of life in relative comfort, because of our endocrine therapy. Their longevity is increased varying periods of time. One cannot prophesy the longevity but one can promise relative comfort to these patients.

Nesbit has followed up 783 patients with prostatic cancer treated before 1940 and found that 69.4% had died by the end of the second year after diagnosis. Similar data were secured from the literature on 569 patients treated by castration, estrogen or both. Thirty percent of these patients had died by the end of the second year; i. e., about half the patients who might have died without endocrine therapy were still living. Rusche has found that deep roentgen therapy, if added to castration and endocrine therapy, gives the longest span of life.

Nesbit and Baum state that three- and five-year survivals are significantly greater in endocrine-controlled patients than among others. Castration alone and diethylstilbestrol alone appear to have about the same value when metastases have not yet occurred, but combination of the two provides a survival advantage over either alone. In patients with metastases the influence of castration and of estrogen on longevity is still effective but to a lesser degree. So, metastases have a grave prognostic significance.

IN SUMMARY, the small cancer of the prostate with no evident metastases deserves a radical perineal prostatectomy. If the cancer has spread beyond the confines of the surgical capsule of the prostate gland, a transurethral revision of the obstructive vesical neck, a bilateral orchiectomy, hormonal bombardment and deep roentgen therapy should all be done to obtain the most comfortable patient and the longest span of life.

(7 West Madison St.)

"The Result Is Most Rewarding"

I HAVE spent hours outside the door of a busy executive chatting with others who were similarly trying to get in to see him. This type of executive had to make all the decisions himself. Nothing could happen until he gave his personal O.K. As a result, nothing much happened. His organization was frustrated, harassed, discontented. Contrast this with the executive who always has time to see those who come to him. He refuses to make any but the most important decisions. Even then he requires his staff to bring him a proposed decision which he can O.K. or revise. The less important decisions are delegated. He holds his people responsible for results, but how they get these results within the broad framework of company policies is their concern. He watches the results closely, but as long as they are satisfactory, he does not interfere. The responsibility to give responsibility is not limited to the top executive. The principle applies between the foreman and the sweeper as much as it does between the president and the division head. Anyone who has experienced what happens when the principle is put into effect will not be likely to forget it. People change from disgruntled cogs in the organization to effective managers—managers of their own time if not other people. They become filled with a sense of purpose; their accomplishments give them satisfaction and astound their associates. The morale of the organization receives a tremendous lift. It is not an easy principle to apply. The man who feels that he can do things better than anyone else does not delegate easily. But when he does, the result is most rewarding.

—From "Responsibilities in Managing an Enterprise," an Address by M. B. MAYNARD, at a meeting of the California Personnel Management Association (Management Report No. 171).

A Retirement Policy

—RECOMMENDATIONS AND CRITERIA

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THE reason for the present great interest in geriatrics and retirement is apparent if we consider the changes taking place in our population and the economic and sociologic changes that are impending.

In 1900 only 18% of our population was 45 years of age or more. Today 40 million persons, 25%, in America are 45 years of age or older. That means one person out of four in America is now 45 or more. Ten years from now, one person out of every three in America will be 45 or over. And in a generation every other person will be 45 or more. Fifty years ago there were only three million persons in the nation 65 or older; today there are more than 12 million. Today, tomorrow, and every day this year, 2,700 Americans will become 65—and will still have an expectancy of 13 years of life. By 1980, according to the National Industrial Conference Board, the number of persons 65 years of age or over will exceed 20 million—and will constitute 20% of our working population. Already 2,800,000 of our working population are over 65, and a noted economist has pointed out that the national economy would lose about 10 billion dollars' worth of goods and services if these workers were to be arbitrarily retired.

It thus appears that we shall have too many aged to support in idleness. To attempt to do so would impose a prohibitive burden of taxes and bring lower living standards and privation for all in the future. There must be a change in our ideas about the usefulness of older workers.

But in our discussions of retirement we must try to steer clear of a number of things which do not concern the industrial physician.* It is easy to expend a lot of time and energy on ethics, sociology, and economics. Our problem is a different one. We must remember that the final decision regarding the age at which a worker is retired rests with management. That age may be 65 or even earlier. Moreover, valid arguments can be made for a retirement-at-65 policy. For one thing, younger employees coming up in an organization need to be encouraged. One such encouragement is the hope of succeeding some of the older employees. Personnel departments also have some practical reasons for wanting to adhere to a policy of retirement at a certain age. Thus the industrial physician is usually expected not to tell management what to think, but only to advise management as to the physical fitness of certain employees for certain jobs. . . .

THE Committee encountered difficulty in arriving at recommendations sufficiently specific to be helpful. We are agreed that each employee should have a case history in the Medical Director's files, starting with his pre-employment examination. This record should be brought up to date whenever any new facts become available, such as reported illnesses or an abnormal condition revealed in the course of an examination. Thus, the employee's record would include an account of illnesses and any evidence of a chronic condition of significance. We believe also that the medical files should contain an expression of opinion from the supervisor as to the effectiveness of the employee on the job, together with any other comments the supervisor cares to make.

We are agreed that complete physical examinations should be made, together with such laboratory work as urinalyses and a complete blood count, and such special examinations as x-rays and electrocardiograms whenever these seem indicated. In some instances, blood chemistry determinations are needed.

We recognize the importance of psychologic factors, such as the employee's capacity for learning, memory, and relations with associates. In other words, what are his attitude and aptitude? It is usually difficult, however, for the Medical Director to answer these questions. One needs a report made by the employee's supervisor; also, if a company psychologist is available, his recommendations would obviously be worth-while.

Presented at the 1953 INDUSTRIAL HEALTH CONFERENCE, at Los Angeles, April 22, at a Joint Session of the Industrial Medical Association, the American Association of Industrial Dentists, and the American Association of Industrial Nurses. This presentation embodies the Report of the IMA Committee on Geriatrics and Retirement, of which DR. DUTCHESS is Chairman, and DRS. RUSSELL B. ROBSON, WILLIAM A. SAWYER, CHARLES SHOOK, H. E. TEBROCK, and R. LOMAX WELLS are members.

*At the session of the Section on Preventive and Industrial Medicine and Public Health, at the AMA Annual meeting at New York, on June third, DR. DUTCHESS presented a paper entitled "Criteria for Retirement." This footnote and those that appear on pages 350 and 351 are extracts from that paper.

"In speaking of retirement we ordinarily refer to withdrawal from active service by reason of age or disability, but with continued remuneration. This is a relatively new development. Hall ('Some Observations on Executive Retirement') found there were almost no retirement plans in the United States before 1900, and that the relatively few plans developed during the next 25 years 'had been inaugurated with executives primarily in mind.' It appears there are now in effect more than 34,000 retirement plans of various kinds. The number is still growing, having increased greatly during the past 10 years."

In our conferences it was pointed out that the physical and mental examination may reveal "how much is left" and "how long with care it can last." Frequently, the employer's need for someone to fill a certain job will be a decisive factor in keeping an employee at work—even with certain physical impairments. Moreover, we all know men with marked hypertension who live on comfortably and productively years after we would expect cardiovascular renal failure.

We recognize, moreover, that no set of standards can be applied to all industries, nor to all types of occupations. *In an airplane pilot, for example, we expect visual acuity, keen hearing, and capacity for long hours under stress. We expect a high degree of stamina and physical coordination in a locomotive engineer. However, we cannot apply any such rigid standards to men whose work is performed without any risk to themselves or others; nor would the same standards apply to executives, who are not required to perform any feats of physical endurance but are expected to think clearly and maintain a normal attitude toward others.

In spite of all the intangible factors involved, the Committee had the feeling that it should be possible to develop a set of methods and standards which, when applied with good judgment, would aid the average industrial physician. It, therefore, seemed desirable to convass a fairly large number of prominent Medical Directors of business and industry, urging them to tell us specifically what methods and standards they themselves use or recommend in evaluating employees being considered for retirement. One hundred and thirty-five questionnaires were sent out, and 103 replies were received. I think the results of the questionnaire will be of interest.

The first question asked was: 1. Does your company practice involuntary or automatic retirement of: (a) executives, (b) employees below executive level?

In answer to this, 73, or 70.8%, replied in the affirmative. Twenty-eight indicated that their companies did not require voluntary retirement of personnel either in the executive or employee group. In four companies retirement is mandatory for executives but not for employees. Conversely, in two companies it was reported that employees are retired when they reach a certain age but executives are permitted to continue at work. Thus, about three-fourths of the companies polled fixed a rigid chronologic termination point.

The second question asked was: What is the retirement age for (a) executives, (b) employees?

In replies we learned that 63, or 61.1%, of the companies polled made age 65 mandatory for retirement of executives. One company allowed them to continue for one additional year; two for two more years. In seven firms executives could remain until age 70, and in one company until age 72. In 12 cases no specific retirement age for executives was indicated.

In contrast to this attitude toward executives, there was some slight difference in the handling of employee retirement. In 58 companies male employees are retired at 65, while in 17 others the same employees are permitted to continue for one to five years more. There is also a difference in the attitude toward male and female employees. The retirement age for female personnel was for the most part the same as that for males, i.e., 65 years. However, 11 companies chose to retire women at age 60, and two companies at 55.

Relatively few (14) respondents indicated that retirement is mandatory on all personnel levels at a fixed date. Of these 14, five reflected the policy of one company at different geographic locations. Thus, only 10 firms are represented in this category. In several instances, while a fixed retirement age has been established, provision has also been made for continued employment of selected personnel beyond retirement age. This policy was equally applicable to non-executive (though usually skilled) employees as well as to executives. In certain other cases, the policy to retire personnel was not rigidly enforced.

The third question asked was: Are pre-retirement health surveys made? If so: (a) Are they routine? (b) At what age are they made? (c) Of what do they consist?

Seventy firms make pre-retirement health surveys; 30 do not. In three cases this question was not answered. In 45 companies it is indicated that the pre-retirement health surveys are made routinely. In 37 others they are done on a voluntary basis, and in the questionnaires returned by 19 companies this detail was not supplied. In 55 companies the surveys are made at a fixed time in relation to retirement, varying from three months to one year or more before retirement age. In 25 companies the examination is made at a convenient, though unspecified time.

In the majority of firms reporting, provision is made for periodic examination of employees, particularly after a certain age is reached. In nearly all cases, a medical history is taken and a complete physical examination is made, supplemented by chest x-rays, urinalyses, blood counts, and in many instances, electrocardiograms.

The fourth question was: In reporting to the personnel department (or management) do you (a) merely express your opinion as to the em-

*"In many jobs there is an obvious need to consider the safety of customers, passengers, or fellow employees. Here it seems one should surely apply some rather definite standards, and in certain cases this is done. For example on one well known air-line a commercial pilot must have 20/20 vision with glasses and meet certain other similar standards. If his systolic pressure is over 140 or his diastolic over 100 he is 'grounded.' Note that this medical rule does not really determine retirement but forbids continuation in the same job. The pilot is automatically grounded at age 60, as compared with locomotive engineers, who are not automatically retired until age 70, and on some roads can continue at work to a very advanced age, provided they can meet rigid standards of physical condition. Thousands of pilots who have grown up with the young aviation industry will soon present a problem demanding solution. And realization of the large number of rather elderly men who are sitting in streamliner diesel electric locomotive cabs may focus attention on the need for high standards of physical fitness for all employees of any age—who are entrusted with the lives of others."

ployee's capacity, or (b) make recommendation to retire, etc?

In answer, most Medical Directors stated they usually reported their opinion. However, they were almost unanimous in stating that, if the circumstances warranted, they would definitely recommend retirement.

The fifth question was: Are examinations made to determine whether retirement should be offered (or required) on a disability basis before automatic retirement age? If so, please describe the extent of such examinations.

With rare exception, a pre-retirement medical examination is made to determine whether retirement should be offered or required on a disability basis before automatic retirement age. The examinations are quite complete.

The sixth question was: Recognizing that many non-medical factors (such as productivity, skill, loyalty, etc.) enter into the question of retirement and that there is a difference in the problem of skilled versus non-skilled workers, executive versus hour-rated workers, heavy versus light work, etc., what physical and/or mental standards do you use in determining whether to recommend retirement, change or reduction of work, or continuation on the job for (a) heavy physical work, (b) light physical work, (c) administrative or clerical work, (d) executives?*

This question seemed to be the most difficult. It appears that specific physical or mental standards which might serve as a basis for retirement recommendation, change or reduction in work, or continuation on the job for varying types of work and personnel, are non-existent.

The only other possible conclusion is that these Medical Directors, who, with their associates, are making decisions daily concerning employees' fitness and who are making recommendations concerning retirement, are unwilling or unable to indicate what standards they apply. It was the consensus that each retirement case requires individual consideration. A criterion generally used seems to be, "Is this employee's physical and mental condition such as to permit efficient performance of duties without unusual hazard to himself, other employees, the public, or company property?" But detailed standards were not forthcoming. In replies received no suggestion was offered as to whether an employee doing heavy physical work should be allowed to continue even if his blood pressure has reached 200 over 120; or whether a clerk or executive must be retired because he has poorly controlled diabetes with advancing retinopathy. Clearly, there is a need for a more precise set of standards by which industrial physicians can measure the health and competence of aging workers. There is a need for what I have come to think of as a yardstick of vitality, a means of measuring the mental and physical youthfulness of aging men and women.

In one respect, at least, we have made progress. Industry is beginning to realize that the practice of computing age chronologically is misleading. But unless we are able to develop accurate, realistic tests for determining true biologic age, we shall be failing in our duty as physicians and as citizens in helping to solve the complex economic and sociologic problems of our aging population.

THE TASK of developing a new measuring stick seems to fall on industrial physicians and medical researchers. It is reasonable to assume that these methods, once developed, may include:

1. Psychological examinations to determine mental youthfulness in older persons, their attitudes and aptitude, reaction time, learning ability, and memory.

2. More complete job analysis to determine which positions the aging worker can handle.

3. Special physical examinations to evaluate cardiovascular competence, neuromuscular coordination, and general physical fitness.

Perhaps we need to incorporate into our work some new methods of examination. For example, a test which measures the amount of blood-flow through muscle has been developed by Dr. Hardin Jones and his colleagues, at the University of California. This work was reported briefly in the press and, presumably, will be reported in full in the scientific literature. These workers believe measurement of blood-flow indicates the physiological youthfulness of the subject. Whether the Jones method will prove helpful remains to be seen, but it is possible that some kind of special examinations will be found reliable and useful.

The important thing is that the search for methods and standards continues, and it is the special province of the industrial Medical Director to point the way. One day we will succeed in establishing the best possible physical and mental standards for the appraisal of aging workers. As industrial physicians we can play a prime role in helping the aging worker to continue productive, in helping industry to set up better retirement programs, and in helping the nation to acquire a true, biologic concept of age.

*"Decisions concerning retirement of executives raise particularly difficult problems. An executive doesn't usually have to be an athlete. He doesn't have to see as well as an air line pilot. He doesn't need impressive muscular strength or manual dexterity. In fact the executive does not necessarily have to be a very good physical specimen in most respects. His assets comprise a complicated assortment of abilities which can not possibly be evaluated by any kind of medical history or physical and laboratory examinations. How well does he think? How much does he know? Can he get along with people? Can he discipline himself? Is he open-minded concerning new ideas? How much drive and enthusiasm has he? What physician can answer these questions? This brief consideration of fitness of executives for continuance in the same position brings us to a matter of great interest for both executives and other workers. And that is the question of youth or senility in aptitudes and attitudes. An employee's superiors and associates have a pretty good idea of his mental deterioration or his continued mental youthfulness. The examining physician supplements their impressions. But I believe we need a set of standard psychological tests which will determine how his memory, learning ability, cooperation, and emotional responses compare with the averages of a younger age. In determining the cardiovascular competence, pulmonary capacity and blood pressure responses the physician has standard methods of recognized value. Do we not need a set of mental and personality tests to detect 'slowing down,' rigidity of outlook, failing judgment, ability to make decisions, irascibility—or on the other hand, to demonstrate youthfulness of mentality and personality?"

Use of Vitamin B_{12} in Treatment of Acute Subdeltoid Bursitis

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THE purpose of this paper is to submit a number of cases treated with vitamin B_{12} that have proved interesting and instructive. For the most part the results are based upon clinical observations in the practice of industrial medicine. The corroboration or the contradiction, the mechanisms, and the scientific explanations if proved correct, will be left to others. If the experiences here related match favorably with those of others, we might then have added another modality in the armamentarium of the medical profession in treating subdeltoid bursitis.

IN THE fall of 1952 a professional colleague specializing in neurology, casually mentioned in the course of a conversation the beneficial results obtained in the treatment of trigeminal neuralgia with injections of vitamin B_{12}. He described the administration as follows: Large doses of 1,000 mcg. were given daily for a week or 10 days and then every second day for a week or two and following that, spacing the intervals according to the necessity. This led to its first trial in case No. 1.

CASE NO. 1 (WEB)—This man, a diabetic, is 43 years of age, a white collar worker, who began to have severe pain in his right shoulder in July, 1952. It had all the clinical earmarks of a typical subdeltoid bursitis. Three years previously this same patient had a similar episode in the opposite shoulder. X-rays then revealed a definite deposit of calcium. He was given a course of deep x-ray therapy and cleared up rapidly. With this background, and in spite of the negative x-rays of the affected joint, he was given another series of x-ray exposures without effect. He could abduct his arm only 10°. He was in severe pain which was not relieved by any medication or other type of treatment. At about this time the writer's attention was called to the use of Cortisone in the treatment of these painful joints, especially where a bursitis was suspected. After one or two injections directly into the painful area corresponding to the location of the subdeltoid bursa, his diabetes kicked up and this treatment was discontinued. The beneficial effect of these injections was questionable but it was decided to continue with Compound F which was not contraindicated in a diabetic patient. Again there was some local relief for a short time only. At about this time the information relative to vitamin B_{12} above described, was obtained. He was given the injections according to schedule and his response was little short of amazing. The local symptoms subsided rapidly, motion improved greatly, and at the present time he is on a maintenance dose of one injection every five or six days. In this case we were undoubtedly dealing with a diabetic neuropathy and the specific benefit of vitamin B_{12} is nothing new.

The next two cases occurred in executives, both of whom complained of painful shoulders, and both of whom had x-rays taken which were negative for any pathology.

CASE NO. 2 (CWD)—This man, aged 50, first complained of pain in the back of his neck radiating down along the external border of the trapezius muscle to the left shoulder joint and then circling the shoulder. He had been subjected to every type of medication and every type of physiotherapy exclusive of x-ray exposures. It included the use of Cortisone and Compound F with no degree of success. The vitamin B_{12} was administered in accordance with the above described plan and after the second week he began to feel considerably better. He has been practically symptom free for several months and now is on an occasional maintenance dose. In this patient the urine analysis and blood count were non-contributory. A proper diagnosis is wanting.

CASE NO. 3 (H)—This man, about 55, had similar vague complaints in his left shoulder and in addition had pains in the palm of his left hand. As a matter of fact, the pain in the hand would come hours or a day or so before the pain in the shoulder began. Various modalities of treatment were tried without any effect. Vitamin B_{12} injections were then given according to schedule and considerable relief was afforded almost immediately. In view of the fact that this patient had to travel a great deal and treatments were irregular, two recurrences took place. Following the institution of treatment he again improved. Recently, he had been put on a regime of Butazolodin by his own physician and on last personal contact stated that he had had no recurrences; this was several months ago.

The next three cases to be described occurred about two or three weeks apart. The favorable effects of the first encouraged the author to try it on those that followed. Since then, there have been about a dozen or more of these types

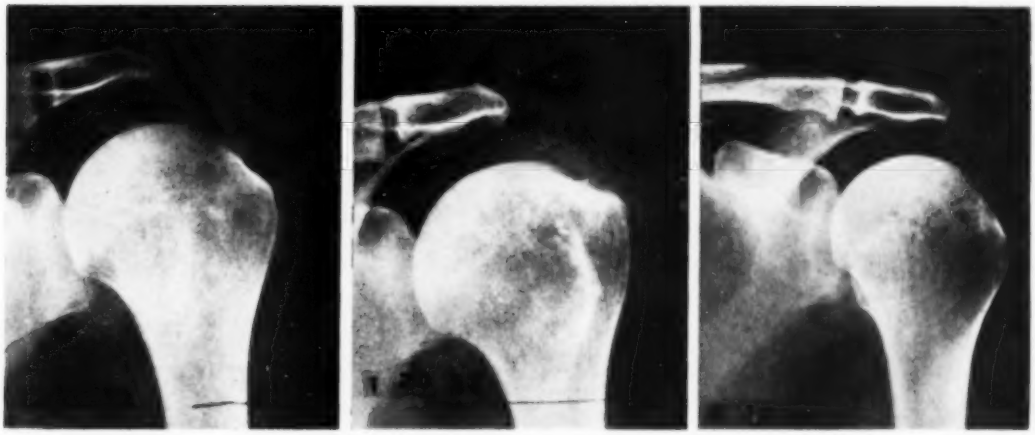

Fig. 1.

of cases and as a result the writer was urged to submit the results for publication.

CASE NO. 4 (AP)—This man first appeared at the plant's medical office on a Friday complaining of severe pain in his right shoulder joint. He claimed that he had had this pain for about five or six days and that he was unable to sleep. Examination revealed him to be in acute pain, unable to abduct his arm more than about 5°. Any attempt passively to raise it beyond that point caused severe pain and spasm in the shoulder joint. He appeared acutely ill and looked like one who had not slept for a number of days. X-rays were taken and a peritendinitis found. The administration of vitamin B_{12} was started. The following day the patient stated that he had had his first restful night in over a week. The injections were given daily thereafter for about 10 days and then the plan above described was adopted. The patient had been advised that if he had no relief after the first or second injections he would be given a series of deep x-ray exposures. As the injections were continued the patient's symptoms kept pace. He stated that he had less and less pain each day, and was more and more comfortable. The motion of the shoulder improved correspondingly. These results were encouraging and dramatic. It is now several months since this patient has received his last injection and he is completely asymptomatic. In addition there is complete restoration of function. More amazing is the fact that x-rays taken about five weeks after the initial injection, show a definite diminution in the amount and consistency of the calcium deposits (Fig. 1).

CASE NO. 5 (AD)—This occurred in one of our investigators, the signs and symptoms of which were exactly as those described in Case No. 4. He is 40 years of age. Here again severe pain was complained of, there was a loss of abduction and x-rays revealed some peritendinitis. Improvement was fairly rapid, relief coming on about the third or fourth day. Complete restoration of function took place, all within a space of about 10 days. It is now several months since his last injection and he has remained completely asymptomatic. X-rays taken five weeks after the initial onset show almost complete disappearance of the small amount of calcium reported in the first x-ray.

CASE NO. 6 (GM)—This employee arrived at the clinic with a history of a severe pain of one week's duration in the left shoulder joint. X-rays revealed a large calcium deposit in the subdeltoid area. Injections were begun and after the third or fourth day the pain was still severe, the patient stating that he was unable to sleep in a bed, and had to sleep sitting up in a chair. About the fourth day it began to look discouraging and the patient was frankly told that we would probably have to resort to x-ray exposures. We were influenced by the fact that this same man had a similar episode on the opposite arm a year before and responded well to a fairly large number of x-ray exposures (17). After a week of therapy with only a suggestion of some improvement, x-ray exposures were recommended. He was reluctant to have this x-ray treatment, primarily on account of the cost. He pleaded for continuation of the injections because of this slight improvement. With the understanding that we had little to lose these injections were continued and not until about the tenth day did he begin to show some definite signs of progress. It was then that he was first able to sleep in bed. This progress continued fairly rapidly from this point on and he, too, now has complete restoration of function and is completely asymptomatic. Most amazing of all is the fact that x-rays taken five weeks after showed a definite diminution in the size and consistency of the calcium deposits (Fig. 2). Recent x-rays show considerable absorption of the calcium deposit.

CASE NO. 7 (TR)—This is another investigator of our company who plays a great deal of tennis. His pain began at about the elbow, involving the entire forearm and hand. It was difficult for him to grasp and hold objects; they would drop

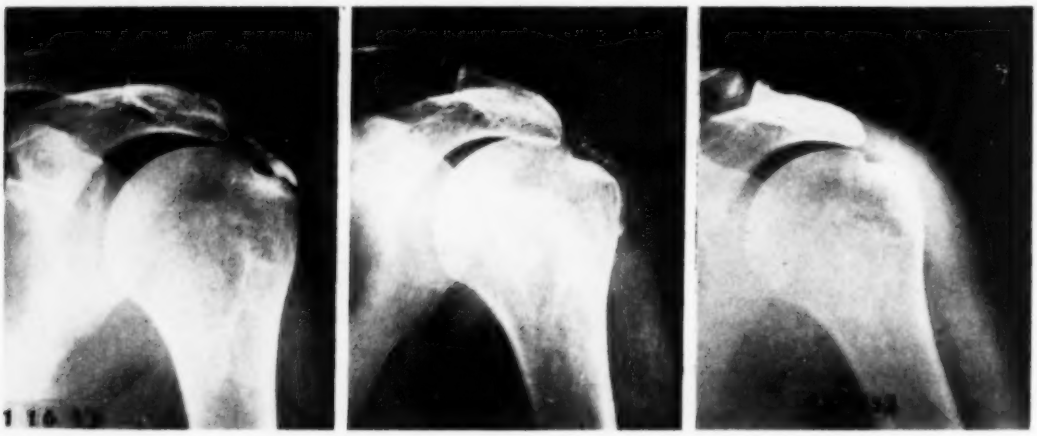

Fig. 2.

from his hand. He was given a series of vitamin B_{12} and showed gradual improvement. For a time conditions were stationary, but eventually he too cleared completely.

Several claimants examined for an insurance company who had had varying types of treatments for acute subdeltoid bursitis were relieved when their physicians accepted the recommendation to try this mode of therapy (vitamin B_{12}). Most of them fared well. Some received small, timid doses, but those who followed the directions closely had good results.

IN THE last few weeks the writer has observed more than six cases that gave vague histories of some paresthesias of one or more fingers of one hand or the other, and in one particular case one hand and both feet. Examinations were essentially negative. They all had had recent colds and/or other conditions they said were diagnosed as "virus." They were given a course of vitamin B_{12}, and all of them have done well. The areas of anesthesia and paresthesia diminished fairly rapidly in extent. One patient originally was put on large doses of thiamine chloride but his symptoms persisted; the areas of anesthesia did not diminish. Others who at the same time were put on vitamin B_{12} showed marked improvement, whereas his case remained stationary. Finally, he was put on a course of vitamin B_{12} and immediately began to feel better. It is believed that these are all some vague types of neuritis that have apparently done well as the result of the administration of vitamin B_{12}.

The author is well aware of the fact that one must be ultra-cautious in accepting a few favorable results as indicative of a panacea for all ills that heretofore had been resistant to various forms of treatment. This in spite of the fact that in over two dozen cases that have been treated or are in the process of treatment at present, none thus far has developed any side reactions. It is most encouraging in discussing the possible harmful effects following the use of large doses of vitamin B_{12} on the hematopoietic system of a normal person, to be assured by an outstanding hematologist that so far as he could ascertain there are no contraindications to the use of large doses of vitamin B_{12}. It is interesting to note further that in most of these cases no history of injury was given. The writer is fully aware of the fact that a good many of these shoulder cases and those showing calcium deposits elsewhere resolve spontaneously with or without the disappearance and absorption of the calcium deposits. Are we dealing with an unusual set of coincidences that have accumulated at one particular period? Or are we actually benefiting a series of cases that heretofore have been resistant to various forms of therapy that are not the result of the universal healer—the "Tincture of Time?" Parallel trials, and results by others, either confirming or disputing the experiences above described, are warranted.

SUMMARY: A number of acute shoulders showing calcium deposits were given injections of 1,000 mcg. of vitamin B_{12} according to the schedule described at the beginning of this article with most encouraging, and in some cases dramatic, results. Most of these cases showed absorption of the amount and consistency of calcium after five or six weeks. Recently this routine was tried on a series of patients complaining of paresthesias of the fingers of one or both hands with rather interesting results. These were acute in nature, and seemed to follow an upper respiratory infection. One of the distinct advantages is the simplicity in method of administration. Local anesthetics, ACTH, or Cortisone, must strike a target area to be effective. Vitamin B_{12} on the other hand is given parenterally at any site. Whether these particular cases would have resolved spontaneously or whether their absorption was accelerated by the technique described in this article will await corroborative evidence. Thus far those tested warrant continued trials.

Health Questionnaire Use in an Industrial Medical Department

ALBERT J. ERDMANN, JR., M.D., KEEVE BRODMAN, M.D.,
JEROME DEUTSCHBERGER, M.A., and HAROLD G. WOLFF, M.D.

INDUSTRY needs a method of quickly identifying applicants for employment who require careful evaluation of their medical capabilities to do the required work. This communication reports a study of the Cornell Medical Index-Health Questionnaire in identifying those applicants who are medically or psychiatrically unsuited for the job requirement or who, if hired, are likely to have frequent absences from work.

The Cornell Medical Index-Questionnaire

THE Cornell Medical Index-Health Questionnaire (abbreviated CMI) collects a large body of significant medical and psychiatric data at no expenditure of a physician's time. The questionnaire is self-administered and worded in informal and colloquial language; it can be completed in 10 to 30 minutes by people with a reading knowledge of simple English. Employees and applicants for employment complete the CMI willingly and without question. Data collected by the CMI are accurate[1] and yield comprehensive medical[2,5] and psychiatric[3,4] inferences that are generally confirmed in examination. The CMI is identical for men and women except for six questions in the genitourinary section. Above is shown the first page of the CMI, and on the next page is shown Section M which contains questions of industrial importance.

(MEN)

CORNELL MEDICAL INDEX

HEALTH QUESTIONNAIRE

Date.....

Print Your Name

Your Home Address

How Old Are You?..... Circle If You Are ... Single, Married, Widowed, Separated, Divorced.

Circle the Highest Year You Reached In School: [1 2 3 4 5 6 7 8] [1 2 3 4] [1 2 3 4]
Grammar School / High / College

What Is Your Occupation?.....

Directions: This questionnaire is for **MEN ONLY.**

If you can answer **YES** to the question asked, put a circle around the Yes.

If you have to answer **NO** to the question asked, put a circle around the No.

Answer all questions. If you are not sure, guess.

A

1. Do you need glasses to read? Yes No
2. Do you need glasses to see things at a distance? Yes No
3. Has your eyesight often blacked out completely? Yes No
4. Do your eyes continually blink or water? Yes No
5. Do you often have bad pains in your eyes? Yes No
6. Are your eyes often red or inflamed? Yes No
7. Are you hard of hearing? Yes No
8. Have you ever had a bad running ear? Yes No
9. Do you have constant noises in your ears? Yes No

B

10. Do you have to clear your throat frequently? Yes No
11. Do you often feel a choking lump in your throat? Yes No
12. Are you often troubled with bad spells of sneezing? Yes No
13. Is your nose continually stuffed up? Yes No
14. Do you suffer from a constantly running nose? Yes No
15. Have you at times had bad nose bleeds? Yes No
16. Do you often catch severe colds? Yes No
17. Do you frequently suffer from heavy chest colds? Yes No
18. When you catch a cold, do you always have to go to bed? Yes No
19. Do frequent colds keep you miserable all winter? Yes No
20. Do you get hay fever? Yes No
21. Do you suffer from asthma? Yes No
22. Are you troubled by constant coughing? Yes No
23. Have you ever coughed up blood? Yes No
24. Do you sometimes have severe aching sweats at night? Yes No
25. Have you ever had a chronic chest condition? Yes No
26. Have you ever had T.B. (Tuberculosis)? Yes No
27. Did you ever live with anyone who had T.B.? Yes No

C

28. Has a doctor ever said your blood pressure was too high? Yes No
29. Has a doctor ever said your blood pressure was too low? Yes No
30. Do you have pains in the heart or chest? Yes No
31. Are you often bothered by thumping of the heart? Yes No
32. Does your heart often race like mad? Yes No
33. Do you often have difficulty in breathing? Yes No
34. Do you get out of breath long before anyone else? Yes No
35. Do you sometimes get out of breath just sitting still? Yes No
36. Are your ankles often badly swollen? Yes No
37. Do cold hands or feet trouble you even in hot weather? Yes No
38. Do you suffer from frequent cramps in your legs? Yes No
39. Has a doctor ever said you had heart trouble? Yes No
40. Does heart trouble run in your family? Yes No

OPEN TO NEXT PAGE

C. 1948
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Cornell University Medical College
1300 York Avenue, New York 21, N. Y.

Description of the Firm

THIS study was carried out in the firm of Benson & Hedges, which currently employs 500 people at its New York City cigarette factory, approximately 60% of whom are women. Almost the entire staff is engaged in factory labor, with only a few people performing clerical duties. The sample studied here is taken from the machine operators.

Applicants for employment fill out a form detailing their industrial histories and qualifications, and are interviewed by the personnel director. Those found suitable for employment fill out the CMI and then are given a physical and laboratory examination by the company physician. Of all the applicants for employment, 20% are rejected by the personnel director (a Ph.D. in psychology) and of the remaining, 7% are rejected by the company physician.

The training period for employees hired as machine operators is one month. A large proportion of these workers are foreign-born, American Negroes, or natives of Puerto Rico. The firm has found that foreign-born and Puerto Rican employees work as effectively as do the native-born, and that Negroes work as effectively as whites.

Morale in the firm is good. Salaries compare favorably with those of other firms using a similar type of labor; promotions and increases in pay are automatic and dependent upon length of

From the New York Hospital, and the Departments of Medicine (Neurology) and Psychiatry, Cornell University Medical College.

This work was done under a contract, recommended by the National Research Council, between the Veterans Administration and Cornell University Medical College.

Sample copies of the Cornell Medical Index-Health Questionnaire may be obtained from the authors, The New York Hospital, 525 East 68th Street, New York 21.

M

145.	Do you sweat or tremble a lot during examinations or questioning?	Yes	No
146.	Do you get nervous and shaky when approached by a superior?	Yes	No
147.	Does your work fall to pieces when the boss or a superior is watching you?	Yes	No
148.	Does your thinking get completely mixed up when you have to do things quickly?	Yes	No
149.	Must you do things very slowly in order to do them without mistakes?	Yes	No
150.	Do you always get directions and orders wrong?	Yes	No
151.	Do strange people or places make you afraid?	Yes	No
152.	Are you scared to be alone when there are no friends near you?	Yes	No
153.	Is it always hard for you to make up your mind?	Yes	No
154.	Do you wish you always had someone at your side to advise you?	Yes	No
155.	Are you considered a clumsy person?	Yes	No
156.	Does it bother you to eat anywhere except in your own home?	Yes	No

Section M containing question of industrial importance.

service. Many new employees are recommended to the firm by other workers. The executive personnel attempts to maintain close personal relations with the workers.

Methods

THE CMIs of applicants for employment who were hired were compared to those of the applicants who were rejected by the company doctor. In addition, for those hired, the CMIs were related to the subsequent record of absences. In all instances the data concerning men and women were treated separately, as experience has shown that women often have different patterns of medical and psychiatric complaints from those of men.

Previous studies[3,4] have demonstrated that a suitable method for scoring the CMI is to count the number of *yes* responses on the form. In the investigation reported here, the responses on the CMI were scored according to the number of *yes* answers on the entire form and also to the 12 questions of special industrial importance in Section M.

In determining the rate of absence for each employee the six-month period from January through June, 1952, was used. Only those workers who had been in the employ of the company for the entire period were considered in the survey.

The firm classifies absence as excused, inexcused, medical, or involving compensation, but since each absence, no matter how classified, interferes with the production of the firm, only the total number of days of absence of each employee was considered.

Results

TABLE I compares the frequency distribution of the number of *yes* responses on the CMI of applicants for employment at Benson & Hedges to the frequency distributions of previous populations studied. The table shows that applicants for employment indicated significantly fewer complaints on the CMI than did the other groups, even fewer than the "ostensibly healthy" group which was selected at random in New York City from among people seeking neither employment nor medical advice. At the time of applying for employment, therefore, men and women expressed fewer complaints than did these other groups.

In every group, women made more complaints on the CMI than did men.

During the years 1949 through 1952, the company physician examined approximately 800 candidates for employment. Of these, 31 men and 26 women were rejected for medical disabilities. Table II compares the average number of *yes* responses, both to the entire CMI and Section M, of the group rejected for medical reasons and of the 145 men and 134 women who were accepted for employment and who were employed for the entire period January-June, 1952.

For both men and women, those rejected by the physician had significantly more *yes* responses than those hired. Again, women made significantly more complaints on the CMI than did men.

TABLE I.

THE PERCENT OF MEN AND OF WOMEN IN EACH SAMPLE WITH THE SPECIFIED NUMBER OF YES RESPONSES ON THE CORNELL MEDICAL INDEX

Five Samples of Men

Number of yes responses	205 B & H. job applicants	282 N.Y. City ostensibly healthy	2,107 New York Hospital patients	183 New York Hospital neurotic patients	371 VA psychiatric patients
10 or more	12%	67%	71%	89%	97%
20 " "	4	37	42	68	90
30 " "	0	10	23	52	76
40 " "	0	5	13	34	59
50 " "	0	2	8	26	45

Four Samples of Women

Number of yes responses	201 B.&H. job applicants	328 N.Y. City ostensibly healthy	3,014 New York Hospital patients	343 New York Hospital neurotic patients
10 or more	28%	79%	84%	99%
20 " "	8	51	62	83
30 " "	4	30	44	65
40 " "	1	16	30	49
50 " "	0	9	18	34

This table reads, for example, at the scoring level of 20: For men, 4% of B. & H. job applicants, 37% of the N.Y. City ostensibly healthy population, 42% of the New York Hospital patients, 68% of the New York Hospital neurotic patients, and 90% of the VA psychiatric patients gave 20 or more yes responses on the CMI.

TABLE II.

THE AVERAGE NUMBER OF YES RESPONSES ON THE ENTIRE CMI AND IN SECTION M ALONE: FOR THE 145 MEN AND WOMEN HIRED, AND THE 57 MEN AND WOMEN NOT HIRED BECAUSE OF MEDICAL DISABILITIES

	Average Number of Yes Responses	
	On entire CMI	In Section M alone
MEN		
Hired	2.6	0.2
Not hired	4.9	0.4
WOMEN		
Hired	5.2	0.4
Not hired	16.9	1.0

TABLE III.

COEFFICIENTS OF CORRELATION, FOR 145 MEN AND 134 WOMEN, BETWEEN THE NUMBER OF ABSENCES IN SIX MONTHS AND THE NUMBER OF YES RESPONSES ON THE ENTIRE CMI AND IN SECTION M ALONE. CORRELATIONS OF 0.21 OR HIGHER ARE SIGNIFICANT AT THE .01 LEVEL

		YES RESPONSES	
		On entire CMI	In Section M alone
ABSENCES	Men	0.40	0.42
	Women	0.26	0.23

In order to determine whether, for those hired, there exists a relation between the number of medical complaints on the CMI and the incidence of absence from work, coefficients of correlation were derived. These were computed for men and women separately, both for complaints on the entire CMI and for those on Section M only.

For both sexes, and for both the entire CMI and for Section M alone, the correlations (Table III) between the number of *yes* responses and the number of absences are significant at the .01 level; i.e., the group of employees with the greater number of complaints on the CMI had more absences than the group with the fewer complaints.

Comment

IN REPORTING on his own health, an applicant for employment makes almost identical responses on the CMI as he does to similar questions asked by the company physician in oral interview. The CMI, therefore, is a time-saving device that enables the busy industrial physician to obtain a large body of medical and psychiatric data for appraisal, both for pre-employment examination and in other aspects of industrial medical practice.

If time is available the company physician can elaborate the responses on the CMI in oral interview. In this situation the use of the CMI saves time and aids in the establishment of rapport between the physician and employees, whether workers or supervisory personnel.

Applicants for employment make fewer medical complaints, on the CMI and to the company physician, than do other ostensibly healthy people. Applicants consider themselves healthy; if they have known medical defects they often conceal them. This is especially true if applicants believe the company physician will reject them for employment if they give a history of medical symptoms or disorders.

Despite the small number of medical complaints made by applicants for employment, giving a narrow range of scores, there is a significant correlation between the number of complaints on the CMI and the number of subsequent absences from work. However, although the group of employees with many complaints on the CMI have more frequent absences than the group with few complaints, the number of complaints on the CMI cannot be used as a measure of prediction of the rate of absence of any given employee. Occasional employees with many medical complaints had few absences and some with few complaints had many absences. The number of medical complaints reported on the CMI, or in oral interview, should not, therefore, be used as a basis for barring an applicant from employment; responses on the CMI are useful in warning the industrial physician that the applicant may have certain disorders that require careful medical evaluation in terms of the job requirements.

Summary

A STUDY was made at the New York City factory of a cigarette-manufacturing firm to appraise the Cornell Medical Index-Health Questionnaire as an aid to the company physician, and as a device for identifying employees likely to have frequent absences from work.

Applicants for employment who were accepted usually had fewer *yes* responses on the CMI than those found by the company physician to have disqualifying defects.

The group of employees with many *yes* responses had a higher average number of absences from work than the group with fewer *yes* responses.

Applicants for employment made fewer medical complaints than other populations studied.

The CMI is a useful adjunct in the medical examination of prospective employees, saving the company physician's time in the collection of useful medical data, and earmarking those who may need careful medical evaluation.

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The Allergic Employee —Atopic Dermatoses

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DURING the past three years a study has been made of 56 employees presenting themselves with skin "rashes" suspected of resulting from contact with physical agents. There were 50 females and six males. In the group 26 also had been tested by the routine intradermal tests of commonly offending inhalants and foods as described previously[1] although in 13 the suggested treatment had not been started. Eight were receiving injections, three had been discharged as cured, and two did not show sufficient sensitivity to warrant injection treatment.

LOCATION OF DERMATITIS

Face, neck	31	Lower extremities	3
Upper extremities	15	Trunk	2
Eyelids, conjunctivae	12		

Several showed a dermatitis at more than one site. Most lesions were confined to the face, around the eyes, or on the hands.

Patch tests, with materials supplied by each individual patient, were applied to the skin of the back with small gauze-adhesive dressings and read after 48 hours' application. Three to 25 tests were done per person, never more than 12 in one session. Patch tests were read as positive if there was reddening of the skin, an eczematoid reaction, whealing with pseudopods, or excoriation. Many of the cases showed several sensitivities.

MATERIALS CAUSING POSITIVE REACTIONS

Soap	42	Plastic scraping	3
Lipstick	21	Color hair rinse	3
Soap shampoo	15	Laundry bleach	3
Rouge	12	Neutral detergent skin cleanser	3
Make-up base	11	Nail polish remover	3
Face powder	10	Tooth paste	3
Nail polish	10	Detergent shampoo	3
Wool cloth or yarn	8	Rubber	3
Cologne, perfume	7	Paper	3
Cold cream	6	Nylon	2
Deodorant	4	and 24 other single positive reactors.	
Hand lotion	4		
Shaving cream	4		
Eye make-up	3	Total	210

Several individuals brought in more than one brand of soap and were positive to all. "Plastic scrapings" include the eye-glass frames in two instances and scrapings from the plastic pen of a third. "Rubber" includes office rubber-bands in two instances and foam-rubber (used as shoulder pads) in a third. "Paper" includes several samples of the various forms and stationery used in office work. It is noted that, of the total of 210 offending agents, 201 were used personally, and only nine, or 4%, were encountered on the job. The office contacts were: pen-scrapings (1), rubber-bands (2), paper (3), glue (1), ink (1), and 10% sodium hydroxide (1).

Reactions were classified as very marked (++++), marked (+++), moderate (++), or slight (+). The more serious offenders are listed as the most significant.

VERY MARKED

Laundry bleach	3	Nail polish	1
Soap	2	Rubber	1
Soap shampoo	2	Deodorant	1
Shaving cream	1	Sodium hydroxide	1
Laundry detergent	1	Total	13

MARKED

Soap	22	Laundry detergent	1
Soap shampoo	5	Perfume	1
Shaving cream	2	Tooth-paste	1
Lipstick	2	Cuticle remover	1
		Total	35

MODERATE

Lipstick	10	Nail whiting	1
Soap	8	Nail polish remover	1
Soap shampoo	5	Deodorant	1
Rouge	3	Nylon cloth	1
Plastic	2	Paper	1
Hair rinse	2	Wool cloth	1
Cologne	2	Hand lotion	1
Nail polish	2	Face powder	1
Make-up base	2	Metal alloy	1
Rubber	2	Shaving cream	1
Sponge	1	Artificial pearl	1
		Total	50

Of the 210 positively reacting agents, 13 caused a "very marked" reaction. Laundry bleach (used at home) caused the most severe excoriations, as well as the 10% sodium hydroxide used by a laboratory technician whose hands were affected. This latter test was repeated using a member of the staff as control who had a "slight" positive reaction which disappeared rapidly while the "very marked" positive test of the technician lasted 48 hours.

None of the 35 marked reactions was caused by an industrial material. Of the 50 "moderate" reactions, three were caused by office contacts (plastic pen scrapings, sponge used in the office, and paper).

Laundry bleach is the most common offender,

followed by a group containing soaps, i.e., cakes of soap, soap shampoos, and shaving creams. Of the 97 significantly reacting agents, 47, or 48%, belonged to this soap group. It is well to remember in therapy that a sensitive patient, after reacting to soap and being changed to a neutral detergent skin cleanser, may develop a sensitivity for this also. This was demonstrated by three reactions.

After soaps, cosmetics form the next largest group of offenders. Of these, there were 30, or 31%. Although only one (nail polish) occurred in the "very marked" group, there were four in the "marked" group (two lipsticks, one cuticle remover, one perfume) and the majority or 25 occurred in the "moderate" group. Half of these, 13, were due to lipsticks (10) and rouge (3).

If soaps, 48%, and cosmetics, 31%, are excluded, 79% of the possible significantly positive contacts are eliminated.

A separate analysis of the 26 individuals who also had received intradermal skin tests was made to investigate what possible effect basic allergic tendencies may have on acquired contact sensitivities.

ALLERGIC COMPLAINTS IN 26 INDIVIDUALS WITH CONTACT DERMATOSES

Skin: Urticaria, eczema, conjunctivitis:	14
Respiratory: Seasonal and perennial rhinitis, some with asthma:	17
Five duplicated skin and respiratory symptoms.	

LOCATION OF DERMATITIS

Face and neck	13
Eyelids	9
Upper extremities	6
Lower extremities	3

Five showed more than one affected site. A greater proportion showed sensitivity of the eyelids, which is a common complaint in the average allergic individual.

MATERIALS CAUSING POSITIVE REACTIONS IN THE 26 ALLERGIC INDIVIDUALS

Soap	12	Nail Polish	2
Lipstick	5	Hair rinse	2
Shaving cream	4	Rubber	2
Soap shampoo	3	and 9 other single positive reactors	
Rouge	2	Total	41

Again, the soap group of 19 articles, or 46%, is the largest, with cosmetics represented by 14 articles, or 34%, the second largest group. The total of 80% contributed by these substances is comparable to the results in the entire group in this study.

A comparison is made of the entire group and the otherwise allergic and non-allergic subgroups.

	No. of Individuals	Positive Skin Tests	Soap Sensitive No.	Soap Sensitive %	Cosmetic Sensitive No.	Cosmetic Sensitive %	Other No.	Other %
Allergic Patients	26	41	19	46	15	37	7	17
Non-allergic	30	169	42	25	80	47	47	28
Entire group	56	210	61	29	95	45	54	26

As has been pointed out earlier, the soap sensitivity of the entire group rises to 48% if only the significantly positive (++ to ++++) tests are considered.

		Soap Sensitive No.	Soap Sensitive %	Cosmetic Sensitive No.	Cosmetic Sensitive %
Total number of positive tests	210	61	29	95	45
Number of significantly positive tests	98	47	48	30	31

It may be concluded that any individual may develop skin sensitivity to any or several of the daily skin contacts, but known allergic individuals are more likely to react with a contact dermatitis.

Summary

1. THREE to 25 skin patch tests were performed on 56 employees, using suspected contact agents.

2. Of these 56, 26 had also been tested with intradermal extracts of commonly offending inhalants and foods.

3. The location of the contact dermatitis was mostly about the face, eyes, and upper extremities.

4. Of the significantly reacting positive tests, 48% were due to soaps and related products, and 31% to cosmetics.

5. In individuals with contact dermatitis known to be sensitive to non-contact allergens, positive tests in 46% were due to soap products and 34% were due to cosmetics.

6. Only 4% of the total gave "positive" reactions to commonly occurring office substances. These included rubber-bands, paper, and ink. In only one individual (a laboratory technician who was found to be sensitive to 10% sodium hydroxide in her work) did a "very marked" reaction appear. In this instance disability resulting in time loss occurred.

7. If soaps and cosmetics are eliminated as a cause of "atopic dermatitis" one can automatically exclude about 80% of the possible offending substances.

(One Madison Ave.)

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Spontaneous Rupture of the Biceps Tendon

(LONG HEAD)

MARTYN C. RATZAN, M.D., Brooklyn, New York

RUPTURE of the long head of the biceps tendon is a relatively uncommon entity. An investigation of the records of a large city hospital revealed no cases in the past 10 years (1940-1950). A total of some 78 cases have been reported in the past decade. Many varieties of operative procedures for correction of this torn tendon have been described.

We are reporting another such case because of the rarity of this condition, and also because in this instance rupture of the tendon occurred in an intact continuous sheath.

Case Report

HISTORY: About a week before being seen by me this patient was lifting a heavy package from a shelf over his head. The package slipped, and the patient grabbed it and felt sudden sharp pain in his right upper arm and shoulder and heard a sharp noise like a twang. No pain obtained but the patient noticed that his arm was weaker and there was a lump on his upper arm on flexing it—especially on shaving. No previous history of trauma (specific), arthritis, or similar episode.

Physical Examination: A 40 year old male, normal except for local pathology of right upper arm.

Right Upper Arm: Rounded mass size of lemon over outer aspect of biceps muscle, soft, flaccid, increasing in size on flexion of arm on elbow. No tendon felt on flexion running up from biceps to head of humerus.

Diagnosis: Ruptured long head of biceps tendon, right arm.

Operation: A three-inch incision linear aspect of upper arm over site of ruptured muscle. Upper end lateral belly (long head tendon) isolated and separation of tendon from upper end of muscle observed. The tendon was frayed for a distance of about three inches and found in sheath which itself had not lost its continuity. The two edges were grasped in large Kelly clamps and brought together. Suturing by three interrupted thick silk sutures was done. Fascia was sutured by interrupted chronic catgut. Skin approximated by interrupted silk sutures, Stuart. Cast applied from fingers to shoulder.

Postoperative Care: Complete immobilization in cast for three weeks. Physiotherapy, passive graded exercises and then active exercises the following six weeks. X-rays taken two months and six months postoperatively showed no evidence of arthritic changes in the shoulder joint.

Comment

TEARS of biceps tendon occur at all levels—at the proximal end, the distal end, and, as in this case, about mid-way. Various operations varying with the ingenuity of the surgeon and the attempt to simulate nature in the restoration of biceps action and function have been done. Attachment of the torn tendon to the brachialis fascia, to the short head of the biceps tendon, or to the deltoid tendon, or to the tuberosity of the radius are the simplest and usually the most efficacious. Bone peg attachments, screws and new insertion have been and are being reported but are more complicated, and as a rule offer little more efficiency than simpler methods.

In the majority of cases good results obtain, though postoperative arthritic changes with some limitation of shoulder movements, especially abduction and extension, probably due to shortening of the repaired tendon and muscle atrophy, have been reported.

The relationship of direct trauma as a precipitating cause of biceps tendon rupture is a moot question. Investigation of tendon tears of all muscles, especially of the supraspinatus in extensive cadaver studies, demonstrated several facts: that partial tears with or without complete healing were extremely frequent; that in the majority of cases these tears were asymptomatic; and that the older the age group the greater number of tears in the tendon fibers. However in biceps tendon rupture, fraying due to capsulitis tendonitis or arthritis of the shoulder joint is further aggravated by the pulley action over the head of the humerus and along the bicipital groove. From an analysis of the literature, together with this case, it is our impression that trauma as a precipitating cause of biceps tendon rupture does not have to be severe at all since in these patients the stage has already been set for the medical mishap.

Finally, if the patient is seen several weeks after the rupture, conservative measures seem to be as efficacious in the final result as is surgical intervention. However, arthritic changes are usually greater in the untreated cases because the bunched muscle and tendon of the ruptured long head cause irritation and an impediment to the normal motion and use of the shoulder joint.

Summary

1. REPAIR of ruptured biceps tendon long head should be done if the patient is seen im-

Fig. 1.
Right arm, posterior view: Bunching up of long head of biceps due to tear of distal end of tendon.

Fig. 2.
Right arm, anterior view: Bunching up of long head of biceps due to tear of distal end of tendon.

Fig. 3.
Left arm, posterior view: Normal even contour, biceps muscle.

Fig. 4.
Left arm, anterior view: Normal even contour biceps muscle.

mediately or within a few days. If not seen for several weeks, operative correction is a moot question and conservative therapy has just about as much to offer.

2. Trauma is not the answer to tendon rupture but merely a final insult to an already diseased or degenerated tendon.

3. The method of repair should be the simplest to simulate normal biceps action—four such methods are listed.

4. This case has been reported because of the infrequency of biceps tendon rupture and because the tearing occurred in an intact continuous tendon sheath.

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President's Page

IN LAST MONTH'S discussion it was pointed out that the Association's Component Societies necessarily are confined to those areas of the nation where there is a concentration of industry, and therefore, a concentration of Industrial Physicians sufficient to make Component Societies practical and feasible. However, quite apart from such areas of concentration, industries exist and Industrial Physicians practice in almost all regions of the country. In the absence of Component Societies in such areas, some other provision seemed necessary to provide both a bond and a liaison between the Association and those members who, although not geographically concentrated, nevertheless represent a very substantial proportion of the Association's total membership. To supply this need, the idea of District Counselors was conceived.

ALTHOUGH the concept of District Counselors originated somewhat earlier, the plan was placed in effect in 1946. At that time six Districts were established embracing the United States and Canada. Within the following few years, it became increasingly obvious that the idea was sound but that the territory involved was much too large to be covered effectively by six individuals. Consequently, in 1950, these original six Districts were divided into 21 separate and smaller Districts, each under the supervision of a District Counselor. With this more realistic and practical allocation of territory, the Counselor structure immediately began to function effectively. Upon the recommendations of the Counselors themselves, a few of these 21 Districts have further been divided each year so that at the present time there are 32 separate Districts, each under the supervision of a District Counselor. As might be expected, the duties and responsibilities of the Counselors themselves, have kept pace with the increase of the Counselor Districts.

TODAY, the Counselors act as regional representatives for the Association in its relation with individual members, with Component Societies, and with the general public. It falls within their sphere to advance the interests of the Association and to promote the cause of Industrial Medicine in their respective districts. Their specific functions entail the transmission of information regarding the Association's services and activities to members and Component Societies as well as conveying the needs and desires of the membership to Headquarters. They stimulate membership interest in local and regional Industrial Health meetings. They recommend to the Association's Officers and Directors, those members and fellows in their Districts who are deserving of consideration for Committee assignments and other important administrative posts in the Association. They interest and encourage prospective members in joining the Association. They recommend to the appropriate Committees those candidates whom they deem worthy of consideration for one of the Association's annual Awards.

As a result of these multiple and important activities, the District Counselor organization rapidly has become one of the major factors in the growth and strength of the Industrial Medical Association, as well as a powerful group for implementing its over-all policies. Only the most able and energetic members are selected for assignment to these posts. With the experience gained in successfully carrying out their assignments, the District Counselors together with the Committee Chairmen, constitute the principal reservoir of future Officers and Directors of the Association.

WITH the numerical increase of Counselors, it became evident that some type of discussion forum for the Counselors themselves was needed. Accordingly, a Counselors' Breakfast Meeting was organized during the Annual Convention at Atlantic City in 1951. It was scheduled for 7:30 A.M. to enable the conferees to finish in time to attend the regular morning scientific sessions. The discussions, however, proved to be so stimulating that the meeting did not adjourn until noon and only then because the meeting room was required for a previously scheduled luncheon.

The Counselors' Breakfast Meeting now is a regular event during the annual convention and, in addition to the Counselors, is regularly attended by all of the Association's Officers who recognize that the Counselors have become an important advisory board to the Association, their suggestions and recommendations being invaluable to those charged with the executive administration of the Association's affairs.

George F. Wilkins M.D.

Los Angeles Industrial Health Conference

THE Officers and Committees of the Western Industrial Medical Association who were responsible for the planning and day-by-day arrangements at the 1953 Industrial Health Conference at Los Angeles last April proved themselves admirable hosts as well as excellent organizers. The Arrangements Committee, under the Chairmanship of DR. EDWARD J. ZAIK, held its first meeting in November of the preceding year, and by March 1, 1953, the whole Conference had been planned in detail. The carefully laid plans reached their happy culmination during the Conference week in a most successful and gratifying manner.

This was the first time in its 37 years that the Industrial Medical Association had gone farther West than St. Louis for its Annual Meeting. Unexpectedly the proportion of physician registrants was larger at this gathering than at any previous one—not because those in attendance from the other organizations cooperating in the Conference were less in number than usual but that the physician attendance was greater. This demonstrated that the Industrial Medical Association is now big enough and important enough to hold its Annual Meeting anywhere.

The United States Navy Industrial Health Organization met on Friday, April 17. Its theme was "Maximum Productive Efficiency Through Health Conservation." The American Conference of Governmental Hygienists began its fifteenth Annual Meeting on April 18; the American Industrial Hygiene Association held its Fourteenth Annual Meeting April 20-23; the Atomic Energy Commission had a full-day meeting on industrial health April 24; the American Association of Industrial Dentists held its Tenth Annual Meeting April 21-23; the Industrial Medical Association convened its Thirty-eighth Annual Meeting April 20; and the American Association of Industrial Nurses began its Eleventh Annual Meeting April 19 and continued through April 25.

The scientific sessions had more than a hundred presentations, and there were 278 names on the list of speakers. Many of the scientific papers are scheduled for publication in *Industrial Medicine and Surgery* and the *American Industrial Hygiene Association Quarterly* throughout the current year. No attempt will be made to review or abstract them here.

Monday afternoon, April 20, was given over largely to industrial hygiene tours—to Los Angeles County Pollution Control District; Lever Brothers Company; University of California Institute of Technology.

The General Motors Medical Conference on Monday, April 20, drew more than a hundred GM physicians to a two-day program of the highest scientific caliber. The General Motors

Left: Dr. Earle A. Irvin on the right, retiring president of the Industrial Medical Association, relinquishing his gavel to the new president, Dr. George F. Wilkins.

Below: Dr. H. Glenn Gardiner, left, conferring the Award for Meritorious Service upon Dr. Edwin DeJongh.

Conferences are models of skillful and yet unobstrusive management; to be a guest at one of them is an unforgettable experience.

The technical exhibits numbering 103 were unusually interesting and informative. Some of the exhibitors, however, did not fare as well in the matter of opportunities for observation of their displays as at previous meetings. Because of long-standing commitments for certain of the meeting rooms at the New Statler, and through no fault whatever of the Arrangements Committee, a number of the scientific sessions, particularly on Thursday, April 23, had to be held outside of the hotel. Some of these were of such scientific importance, and all of them were so extensive in the time consumed, that many physicians who felt that they might learn something from the meetings were deprived of a recess or interim chance to visit the exhibits. This was particularly true of the Western industrial physicians who do not often find so many of the facilities of industrial medicine on display at one time and place. On the credit side as to the interest of the scientific programs practically every meeting room proved too small for those who wanted to hear what was being said. This was completely unexpected; the seating facilities had been estimated—and it was thought quite liberally—on the basis of previous meetings. At every convention, however, there are unforeseen developments that contain their lession for next year's committees. Careful notes were taken in all respects of possible improvements in the future, and the Chicago Conference in April, 1954, will profit by the small difficulties in 1953. The 1954 Conference, however, will have to be truly brilliant to surpass the Los Angeles occasion.

Characteristic of conventions in general is the increasing number of committee meetings. The Governmental Industrial Hygienists devoted the afternoon of April 20 to reports of its 10 standing committees, and these, therefore, did not interfere with or detract from the attendance at the regular scientific sessions. That was not the case, however, with the committees of the other organizations. During the week there were more than two dozen committee meetings being held at the very hours when a good many committee members would have preferred to be in the scientific sessions. Such meetings interfere with the straight-line purposes of Association programs. No way is known to curb these activities, but there might be the pos-

Above: Dr. Gradie R. Rowntree, right, presenting the Health Achievement Award to Dr. Russell G. Birrell.

Right: Dr. Robert E. Eckardt receiving the Merit in Authorship Citation for Dr. Louis H. Hempelmann.

Right: Dr. Robert A. Kehoe handing the William S. Knudsen Award to Dr. Harriet L. Hardy—"a kindred spirit"—who received it for Dr. Alice Hamilton.

Below: Dr. L. A. Alesen, President of the California Medical Association, opened the banquet program by welcoming the Conference members and guests. Dr. Christopher Leggo at the right.

sibility of scheduling some of the committee meetings before or after the formal sessions.

THE ANNUAL BANQUET, staged this year at the Cocoanut Grove at the Ambassador Hotel, was the occasion of the Association Awards. There were four of these.

First was the citation for "Excellence in Medical Authorship." This was given to DR. LOUIS H. HEMPELMANN, for the discourse on "The Acute Radiation Syndrome: A Study of Nine Cases and A Review of the Problems" by DR. HEMPELMANN and his associates, HERMANN LISCO and JOSEPH G. HOFFMAN, in *Annals of Internal Medicine*, 36: 2, 279-510 (February) 1952.

The next Award, the Association's recognition of Meritorious and Distinguished Service in its behalf, was given to DR. EDWIN DEJONGH, Medical Director, Detroit Diesel Engine Division, General Motors Corporation.

The third Award was the one which the Association yearly bestows upon Management. It is identified as the "Health Achievement Award," and was given this year to Imperial Oil, Limited, of Toronto, Canada. DR. GRADIE R. ROWNTREE, Medical Director, Fawcett-Dearing Printing Company, Louisville, Kentucky, presented this Award to DR. RUSSELL G. BIRRELL, Medical Director of Imperial Oil, in the following words:

"During a five-year period the Imperial Oil Medical Department has grown from a pre-employment examination program to a complete well-rounded industrial health program. Its personnel has grown from one part-time physician to eight full-time and 16 part-time physicians and from two nurses to 22 full-time nurses. Imperial Oil has more than 13,000 employees and medical and health centers have been established in 14 different plant locations throughout Canada. Only five years ago, DR. BIRRELL was called upon by the president of the Imperial Oil, Limited, to make a survey and recommendations for an industrial health program. His recommendations were not only accepted, but DR. BIRRELL was asked to become the Medical Director.

"This Award is given to Management for its interest in improving and maintaining the health of its employees. We are sorry that the president, MR. GEORGE STEWART, was unable to be here; however, it gives me great pleasure to present the Health Achievement Award to the man who did the work—DR. RUSSELL G. BIRRELL, of Toronto, Canada."

The last Award, and the highest in the power of the Association to bestow, was given to DR. ALICE HAMILTON. Because of Dr. Hamilton's inability to be present, DR. HARRIET L. HARDY, of Boston, co-author with DR. HAMILTON of "Industrial Toxicology," accepted the award for her. DR. ROBERT A. KEHOE made the presentation in the following words:

Delegates to the Meeting of the Territorial Association of Plantation Physicians arriving in Honolulu.

"On behalf of the appointed Committee, I am to bestow the highest award within the gift of the Industrial Medical Association, the Knudsen Award for outstanding contribution to the field of industrial medicine. A deep sense of satisfaction stems from participation in the rare honor which the Committee and the Association reflect upon themselves in selecting a colleague of international distinction to receive our homage. My personal pleasure could be greater only if I could command the eloquence suited to the occasion, and yet the simplest of words will reveal to you the identity of the recipient and the fitness of the choice, long before the name is mentioned, so unique has been her place among us and her contributions to industrial medicine.

"This gentle lady has spoken strong doctrine. With womanly grace, she has striven manfully as investigator, consultant, teacher, and author, to relieve the stresses of those who toil, to promote the health and safety of those who earn their livlihood in dangerous trades, and to civilize the often impersonal savageries of the economic and commercial struggle, through hygenic percept, professional practice and social adjustment. The sites of her professional training included, in sequence, Ann Arbor, Leipsig, Munich, Frankfort, Chicago, Paris and Baltimore. Her service as teacher began at the Woman's Medical College of Chicago, and continued later for many years in the Harvard Medical School in which she is now Emeritus Professor of Industrial Medicine. Her studies and investigations penetrated into Germany, England, Russia and France as well as America. Her wide acquaintance with teachers and investigators, and with industrial physicians and organizations here and abroad, together with her comprehensive familiarity with the literature of industrial medicine and toxicology, has made and kept her an international authority for more than half a century.

"Among her publications, three books have recorded for us the information gleaned from her wide experience and untiring study. 'Industrial Poisons in the United States' when published, was the best text of its kind in the English language. After a quarter of a century it holds its place as a valued reference work. 'Industrial Toxicology' and 'Exploring the Dangerous Trades' stand high among modern works of their type, and are worthy products of an intense professional zeal and an active intellectual curiosity. So may be stated, in highly abbreviated form, the product of the labors of DR. ALICE HAMILTON. They need no elaboration in this company. They stand as landmarks in the progress of industrial medicine within the United States of America and beyond its borders.

"Circumstances have made it impossible for DR. HAMILTON to be present in person to receive the award. But one of her associates—a kindred spirit—has graciously consented to be our messenger. I charge her to accept for DR. HAMILTON this bronze token of our esteem, to bear to her our greetings, and to express to her our admiration for her magnificent work of a lifetime."

Letters

Unfinished Business

To the Editor: Your editorial, "Inching Socialism," in the May issue of *Industrial Medicine and Surgery* and the opinions you express in it are in general agreement with my thoughts on the final report of the President's Commission on Health Needs of the Nation. I do want to voice a protest, though, of your implication that all of the members of the Panel on Industrial Health were in agreement with the Commission's statements in the final report and that they had the stamp of our approval. Such is farthest from the truth, and I should like to set the record straight on this matter.

The first draft was written by the keynoter of the panel, Dr. H. K. Abrams, and sent to all of the panel members for their comments. Several of us were very much disturbed by much of the slanting of the statements in that draft and by the very dark picture painted of industrial health in the United States. Both in a written report and in a personal appearance before the full Commission in July, I stated that it was essential to include figures on the tremendous progress which had been made in both accident and disease prevention in the past three or four decades in United States industries, so as to point the way for continuing improvement in the industrial health picture. Several Commission members agreed that this was the only fair and constructive approach to the problem.

On October 24, I wrote to the Commission as follows:

"It has come to my attention that the final reports of the various panels are almost completed, but that there probably will not be an opportunity for us to review the second drafts as was promised originally.

"If a second draft of the Industrial Health report has been completed, I shall appreciate seeing a copy of it. I naturally am interested to know if some of the constructive material which I sent following the first draft has been added. I feel very strongly that much of it should be incorporated in the report to give it proper balance. The first draft clearly painted a distorted and unnecessarily black picture of the health of the industrial worker in this country."

On October 29, I received the following reply from the Commission:

"We appreciate the interest in the Commission's work on the subject of industrial health expressed in your letter of October 24.

"The Commission has instructed the staff not to circulate further the various sections of the report which are now in draft form because of the fact that from now on the report must be considered that of the Commission, rather than that of the various panels.

"I can only assure you that we do appreciate the valuable assistance which you have given to the Commission, and that the comments which you submitted on the first draft statement (which was not, of course, a Commission statement) have been given serious consideration, as have the comments from other panel members.

"We are now hard at work in the final writing of the report and expect to have it completed before the end of this calendar year."

On receipt of this letter, I discussed the matter of sending a protest with a number of panel members, but we decided nothing useful would be accomplished thereby. As one of them said, "All we can do now is await the final verdict with fear and trembling." A minority report was impossible until we could see the final draft, but after the formal report had been published, a minority report was utterly useless. It simply would have been filed in the archives with or without thanks.

The final report came out as a much improved statement when compared with the first draft, but I fully agree that the employer receives little credit for his part in the recognized improvement in the industrial health picture and the industrial physician is unfairly maligned by the implication of lack of integrity. I also resent the implication that the final report was published with the approval and consent of the panel members just because our names appear with the document.

By now all must be convinced that the final draft did not have my approval or of anyone on the panel and that we were not given an opportunity to voice our approval or disapproval. I fully believe, however, that the tight deadline against which the Commission was working is largely to blame for the form of the final report. It actually is an unfinished piece of work. I have heard others say the same for other sections of the report. I honestly do not believe that there was a deliberate attempt on the part of Dr. Magnuson or the Commission to sabotage industrial physicians or industrial medicine in general. Had there been enough time allowed for the panel's evaluation of the second draft (which became the final report), I am satisfied that a more complete and acceptable final report would have resulted.

—O. A. Sander, M.D.

Injury-Liable

To The Editor: I have read with much interest "The Phenomenon of Accident-Proneness" by Arbous and Kerrich in the April (1953) issue of *Industrial Medicine and Surgery*. There is a great deal to be said for the stand they have assumed concerning the problem of accident-proneness. The term itself has most certainly been abused and misused throughout the recent literature since its coinage by Farmer and Chambers, but then, even definitions of the term "accident" as they appear in the literature do not agree with one another. In most instances the word is made synonymous with the word "injury." And, indeed, all the data on accident proneness in recent years have been injury data. This misuse has been given support from both academic and clinical psychologists as well as from physicians and safety engineers. Perhaps Dr. Charles Mertens, Belgian industrial psychiatrist, is more concise with his term "accident-liable." Possibly "injury-liable" would be even more applicable, but we must try to express the term liability in other ways: (1) First of all, by referring to some statistical laws, we can ascertain in terms of percentage, the chance or probability that a man will have an accident. (2) Secondly, we can refer to a man's injury rate or record. However, there is not necessarily a high correlation between injury liability and injury record. A man who has a high injury rate is, or was, certainly injury-liable. We could even say that any man who has had one accident was at least at that moment injury-liable, but a man can be liable to injury even for a long period of time without having a high in-

jury record, because the record refers to the *fact* that an injury occurred, while the term "injury-liability" refers to the *possibility* of its happening. Between the fact that an accident happens and the possibility for it to happen is the interplay of a great number of indeterminate factors which are very hard, if not impossible, to detect. (3) Detecting these factors, catching their interplay, is a third way of explaining injury-liability. We would call this approach the clinical method, which is probably the most fruitful way of expressing the term. In this regard I wholeheartedly agree with the authors of your recent article.

Since reading the article, however, I have been wondering if its authors did not omit reference to a considerable body of data which has been gaining credence during the past few years. I think of the work of such people as Flanders Dunbar on personality factors in patients with repeated fractures, as well as Halliday's concepts of the part control of aggression plays in the injury-liable person. Certainly such hypotheses as that of Carl Menninger's concerning "purposive accidents" have lent much to our acceptance of the concept of accident proneness, as has some of the work at the Birmingham Accident Clinic. The many recent stimulating articles in *Industrial Medicine and Surgery* by such people as R. A. Sutter, P. J. Morrad, W. Z. Baro, and Wong and Hobbs appear almost in contra-indication to the more recent article. Certainly there are many studies in our literature which come up with differing conclusions from the one mentioned (the unpublished work of Adelstein) from which the authors conclude that our conception of accident proneness "stands in need of a critical examination from first principles." The often-quoted paper of A. J. Rawson cites such studies, the excellent work of Kerr at the Illinois Institute offers some hope of a constructive clinical approach on the basis of study of work groups as does that of Wong and Hobbs at Western Ontario. Le Shan's recently proposed hypothesis of the "safety-proneness" appears to be another recent useful contribution to our knowledge of the industrial accident. The mental hygiene approach of Kenneth Soddy, of the National Association of Mental Health in Great Britain, goes far toward the production of a practical approach to the problem of accident prevention.

It would appear that the different backgrounds and interests of the academic and clinical psychologists on one hand, and the industrial physicians and psychiatrists on the other, have in part contributed both to a misunderstanding of accident-proneness and to different degrees of optimism concerning constructive approach to the problem. Of course, neither point of view may be excluded from our thinking, they obviously complement each other, but for a balanced presentation of the present status of injury-liability, I feel more emphasis must be placed on the work of the clinician. We must emphasize that while such psychological research is necessary before theories will be developed leading to exact prediction of the accident-liable worker, there is nevertheless a vast amount of practical data available at the present time. It is possible to put much of it to work now without waiting for the psychologist to refine his hypothesis. There is far more we can do about the injury-liable individual than is commonly recognized. If it is true that protective devices and engineering safeguards have come close to the point of diminishing returns it is *now* that we must emphasize what we *do* know of the individual and the group in which he works in our campaign against accidents.

—ALAN A. MCLEAN, M.D.

University Activities

University of Michigan

UNIVERSITY of Michigan School of Public Health and Institute of Industrial Health have arranged their next inservice training course to be held October 21, 1953, in the School of Public Health Building. The subject is "Technical and Expert Testimony in Cases Involving Medical and Health Problems." The course is built around the recognition that much of so-called expert testimony presented in courts of various levels frequently is of low quality, unsuited to the dignified purposes of court procedure. Often times this grows out of inherent lack of qualification of the would-be technical witness but in part grows out of the lack of familiarity of the witness with court procedures and objectives of trials and hearings. All this reflects upon the medical profession, the industrial hygienist, and, in a measure, upon the attorneys who likewise may be insufficiently familiar with the technical material in hand.

J. JOS. HERBERT, under the title "Attorneys, Technical Witnesses and the Courts," will discuss the objectives of judicial trials; opportunities for the technically trained to serve the courts; shortcomings of the average well-meaning technical witness; ineptness of attorneys in the utilization of technical witnesses; extent of the technical witnesses' obligations in disclosures on the stand; privileged information; protection of the technical witness by the court; desirability of understandable language; characteristics of the good witness; characteristics of the troublesome witness; how the scientific professions best may serve the objectives of the courts.

EDWARD D. SPALDING, M.D., will discuss "The Physician's Obligation to the Courts," with relation to the low state of technical testimony, and principally medical testimony; the reasons for this; the unfamiliarity of physicians and other possible witnesses with court procedures; the undesirable professional witness; the repugnance of most physicians for court appearances; the unwillingness of technical witnesses properly to prepare for court work; the obligation of the medical profession and other scientific professions to elevate the tone and quality of technical testimony; the avenues of betterment.

CHARLES W. JOINER will have the subject "Judicial Procedure as it Applies to Technical Witnesses." One of the sources of the limited capacity of technical witnesses and one of the causes of the aversion of physicians and others to participating in litigated matters stems from lack of familiarity with well established court procedure. Such witnesses are little versed in the rules of testimony, the necessity for establishing qualifications, differences in opportunities for the material versus the expert witness, hearsay matters, the import of the hypothetical question, limitations of use of published works of others, the opportunities to be labeled a hostile witness and the consequences thereof, and general behavior and demeanor in the court room and in the witness chair. This presentation designed for the practical guidance of the inexperienced technical

witness in order that this attainments may be used to best advantage in the court room in the disclosurers of facts.

T. DONALD WADE will present the attorney's viewpoint on "Preparation of the Technical Witness Prior to Court Appearance," discussing trials won or lost in the preparation period prior to court appearances; the justification and essentiality of preliminary appeals; the relationship between the testimony of all witnesses, medical and expert; the requirement of rapport between attorneys and technical witnesses; the preparation of interrogations later to be used; the preparation of hypothetical questions; the identification of the attorney by the technical witness; the identification of the technical witness in judicial procedures by the attorneys; the preparation of exhibits and the manner of their use.

THEODORE J. CURPHEY, M.D., will give the physician's viewpoint on "The Medical Preparation of a Medical-Legal Case." In any major trial of medical importance, the expert witness is confronted with the necessity of marshalling, appraising, and digesting all resources available for his use. This may include, for example, familiarity with a work environment, the circumstances of an alleged incident, the physical and mental status of a litigant whose woes may be supported or opposed, laboratory examinations of diverse character, the collection and protection of samples, the procurement and safeguarding of exhibits, cooperation with other technical witnesses and material witnesses, and generally supporting the attorney responsible for his court appearances.

ELI SHERMAN JONES, M.D., will explain "The Use of Scientific Records and Exhibits in the Court Room." Any medical case later may be involved in litigation—the necessity for full and precise records from the beginning; the proper safeguarding of unexplored, unverified history statements; the safeguarding of tentative diagnoses; the disassociation of the final diagnoses from casual later unconfirmed recorded impressions; pitfalls in technical records; who may present technical records; the safeguarding of exhibits; the avoidance of impounding valuable records by the courts; x-rays.

WILLIAM G. FREDRICK, SC.D., will speak on "The Dilemma of Official Agencies as to Court Appearances." Such public agencies as municipal and state public health departments and some portions of the University of Michigan are resistant to participation in court work on any partisan basis although subject to subpoena; the inevitability of being labeled as partisan when called by either side; the obviousness of the desire for the prestige of official agencies on a partisan basis; the disruption of official duties to maintain stark neutrality in legal matters; the opportunitites to avoid court appearances; the desirability of legal innovations that would permit service for public officials and all other unbiased witnesses by being called by the court itself as "court witnesses."

The evening session will be a mock trial demonstrating "Good and Bad Technical Witnesses in a Simulated Case of Silicosis Based on a Compensation Claim." The planning committee for this in-service training course, under the Chairmanship of CAREY P. MCCORD, includes S. GERARD CONKLIN; WARREN A. COOK; JOSEPH A. CRAIGEN; FRANK R. FERLAINO; WILLIAM G. FREDRICK; MISS ALICE HAGELSHAW; J. JOSEPH HERBERT; W. G. HOTCHKISS; CHARLES W. JOINER; MISS ELEANOR MCGARVAH; MISS ELLA MCNEIL; OTTO TOD MALLERY, JR.; J. DUANE MILLER; CLARENCE D. SELBY; JOHN SOET; VAN C. VALKENBURG.

Books

"Things Are Different"

AVIATION TOXICOLOGY: Committee on Aviation Toxicology, Aero Medical Association. The Blakiston Co., New York, 1953, pp. 120, $4.00.

This modest-sized handbook is the brain work of a commanding committee of the Aero Medical Association, with some hovering-over the manuscript by a number of distinguished toxicologists. The committee observes that three professional groups should eye the contents, namely, the aircraft designer and constructor, the toxicologists who know much about the action of damaging agents, and the flight surgeons responsible for human beings in charge of flights. What might have been added as an aside and almost too obvious, is that in the construction of aircraft by earthbound workmen, the ordinary exposures are not other than for workers in similar pursuits such as automobile manufacture.

What justifies this book is the manifest that at 20,000 feet of altitude, and more than that and even less, things are different. Exposure to carbon monoxide at high levels, for example, might lead to consequences dissimilar to happenings at sea level. But this book is no lecture on the disturbed physiology of decompression states. Without any complaint about the title of this book, its distinctiveness could have been revealed by another, "Industrial Toxicology at Increased Altitudes."

Along toward the end of the book is that inescapable listing of individual toxic agents. Same old substances, but considerably only 135 of them. But wait, such listings are never complete and their pronouncements never are final. In the same mail that brought this book, came the then current issue of the *Journal of the American Medical Association*. The two are far from agreement as to one item that attracted the eye—isopropyl alcohol. The book, with good reason and under wise counsel, briefly recorded, "not seriously harmful" and "has not constituted a hazard." Experience says just that. Then *J.A.M.A.* and its account of a near fatality in a child from isopropyl alcohol sponging to reduce a fever. Both probably are right. Maybe isopropyl alcohol is more toxic than now deemed, or maybe for just a few persons. That is what provides fascination to all of industrial toxicology, the inevitability of changed opinions, the essentiality of renewed appraisals. That is what makes aviation toxicology a bit unique —exposures under altered circumstances.

Joint Fluid

SYNOVIAL FLUID CHANGES IN JOINT DISEASE: Marian W. Ropes and Walter Bauer. Harvard University Press, 1953, pp. 150, $4.00.

Many of us suffer semantic affronts in endeavors properly to differentiate between "Monograph," "Brochure," "Pamphlet," "Leaflet" and "Reprint." Every man to his own definitions regardless of the dictionary, but for this department and for the present, a monograph is an extensive writing usually in book format precisely directed to a single topic. A brochure is any limited printing of few pages, but of sufficient number to require stitching or

stapling. A pamphlet is a small-size brochure. A leaflet is a printing that requires no stitching, gluing or stapling. A reprint falls into a different category. It is but a duplication of a previous printing and thus might represent a leaflet, pamphlet, brochure, or even a monograph. Most reprints by these definitions become pamphlets. A few because of size become brochures. So defined, this publication is a monograph and a good one.

Since Industrial Medicine has adopted Paracelsus (1493-1541) as its remotest known ancestor and admits that Paracelsus' genes run through occupational health, in all of its ramifications this monograph in its entirety may be espoused. Its first two lines are: "Paracelus is credited with having first noted the presence of viscous fluid in the articular cavities."

In true Harvardian modesty, this monograph speaks mighty well of itself on the jacket in language reflective of the publishers and not the authors, as now appears: "This is a distinguished, definite study of joint fluid in health and disease. On this subject there has never been anything remotely as complete and meticulously executed as this study.

"The book gives the present concept of the nature of synovial fluid and the characteristics of normal fluid as a basis for comparison and evaluation of the changes in synovial fluid produced by disease. The results of 1,500 examinations of synovial fluids obtained from patients with various joint diseases are described and analyzed. The alterations in individual characteristics of fluid—such as cell counts, sugar content, viscosity, etc.—under conditions of disease are presented, and are related, whenever possible, to the underlying pathological alterations. The abnormalities in fluids from the various types of joint disease reflect the changes in the synovial tissues and increase with greater severity of inflammation. The book will be indispensable to the specialist in joint disease, and will prove valuable to all physicians, research workers, and students concerned with physiology, articular disease, and orthopedic surgery." Now that cellophane paddings are being introduced for joint cushions, maybe these fluids are not so essential after all, or instead maybe the synovial fluids become doubly important.

Diseases and Food

THE CONTROL OF COMMUNICABLE DISEASES: Hugh Paul. Harvey & Blythe, Ltd., London (John de Graff, Inc., New York), 1952, pp. 526, $9.50.

This author is more impressive in the hand-hoeing of his small gardens than he is in the gang-plowing of his major acreage. By American standards he gets off to a bad start when in the book's "Foreword" he states, "Broadly speaking, epidemiology is the study of the reaction between the parasite and its environment." Newer concepts provide a far larger domain than in the definition just introduced. Thus, there might be an epidemic of library vandalism in a given city, or state, where in certainty no parasite is involved unless the human dregs that engage in vandalism are to be labeled as vermin. That difference of opinion is not involved in many of the author's discussions, such as with respect to the requirement of food supplies for rapidly increasing populations. Here and there he states:

"Every day another 50,000 persons are born into the world. Let us consider what their food will be. The Food and Agricultural Organization (FAO) was given the task of finding out how much food was necessary for its requirements, and reported that by the year 1960, as compared with pre-war supplies, there would be needed an additional: 60,000,000 tons of cereals; 30,000,000 tons of meat; 250,000,000,000 tons of vegetables and fruit; 35,000,000 gallons of milk."

In equitable distribution of available foods "members of the wealthier countries such as the Western democracies, America, and Russia, would therefore have to agree to reduce their standard of living below what is considered a subsistence level, and instead of receiving a generous dietary of 3,000 calories and over would probably be compelled to exist under conditions of malnutrition on a dietary not appreciably greater than 2,000 calories. The suggestion that they would ever agree to this is fantastic. Most advanced countries have at some time in their career risen to great heights of generosity which have marked their sense of deep responsibility for their fellow-creatures, but not a single country has denied itself for any appreciable period an adequate dietary and submitted itself to partial starvation in order that any other country might be able to abolish starvation. It cannot for one moment be suggested that those countries which possess the wealth, and the strength to retain it, will voluntarily agree to equality with the starving millions of the Far East.

"Of the total land area of the globe some 11,000 million acres of land, or about one-third, are said to be climatically suited to agriculture, but for various reasons only about 3,000 to 4,000 million acres are used; of these 10 to 15% is devoted to industrial crops. In theory, therefore, the problem is not insurmountable. The difficulties are nevertheless considerable, and the efficiency of agriculture throughout the world varies enormously; if all arable land were as skillfully and as intensively cultivated as in Britain the production of food would be multiplied manifold. Scientific knowledge enables us to convert much marginal land into good farm land, and modern insecticides contribute much towards the successful eradication of pests and the control of disease in plants and animals. Modern chemicals are valuable for the destruction of weeds, and the science of production of fertilizers has advanced considerably during the last generation. Artificial insemination is now regularly practiced and is resulting in a selective improvement of the breeding of cattle. Agricultural experts believe that by using present cultivated lands more efficiently and by bringing certain new lands into use, it would be possible to double the world's food production by 1960.

"In India very many millions of the population suffer from malaria, and because of ill-health their standard of food production is low. It is unlikely that it can be greatly improved without first preventing and curing malaria, but the cure of malaria and the prevention of death from this disease would result in an enormous increase in the population, and it is doubtful from the economic point of view if each individual Indian would have more as the increased production would have to fill more mouths.

"This may appear cynical, but it is not entirely a matter of either ethics or economics. The improvement in the public health services in India has effected a great reduction in the infant mortality rate, but the lives saved have mostly been lost later by starvation and the net gain is problematical."

INDUSTRIAL MEDICINE AND SURGERY

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Flash—To All City Editors

AT THE TIME of the recent AMA sessions in New York City, there was an ancillary meeting of industrial physicians. A spokesman politely sought of a great newspaper of that city a bare announcement of that meeting. A bit cavalierly the city editor made the pronouncement, "Industrial medicine is not news." Maybe so.

But—is there no news in the more than 10 years of extra life added to the life span of the average industrial worker? The industrial physician shared in that accomplishment.

Is it not news that the industrial physician, through his disclosures, has made the older worker past 60 a prized employee, when a generation ago those 45 years of age and over were labeled "burnt out"—unsuited for a new job because of presumed degenerative infirmities?

Is it not newsworthy that today's industrial physicians recognize few handicaps that rightfully debar afflicted workers from employment?

Do not women newspaper readers rejoice that industrial physicians have provided the realization that physically and mentally women are equals of men in almost every work enterprise? Tens of thousands of women profit by employment on jobs sacredly walled off a generation ago.

Have not newspapers missed the drama in the banishment of the majority of occupational diseases, until today student training in such diseases is hampered by the lack of clinical cases? Where are the 9,000 cases of lead poisoning that plagued the mines of Utah in its yesterdays?

Is there no news in the fact that in this country's factories the prospect of injury is far less than in the worker's home? The industrial physician contributed to that victory.

Would not this item attract a mite of attention in the city and at the time of the IMA annual meeting: "The largest national organization of industrial physicians in the world?" The workers of America have as their benevolent servants more physicians fostering their health conservation than any nation of the earth.

Is it not news, however regrettable, that industrial medicine yearly is faced with a larger complement of wholly new diseases than for all other medical specialties combined? Every day in the year some new and threatening, but useful, chemical takes form in industry's laboratories. That's good for a headline!

In the turbulent world of festering desire for socialized medicine, is it not of news value that industrial medicine has proved a sturdy resister of every beckoning invasion?

Industrial medicine is news. Better still—industrial medicine is good news.

Certification

NUMEROUS requests reach this Journal seeking information on the status of plans for board certification of industrial physicians. In compliance, a memorandum prepared by the Secretary of the Interim Board is here published without modification. This memorandum was addressed to all members of the Interim Board, which accounts for the language of the report:

"June 29, 1953: As indicated in an earlier statement, the matter of revision of residency and fellowship essentials in occupational medicine is now in the hands of the Essentials Committee of the Council on Medical Education and

Hospitals. The intent is to have them revised for re-submission to that Council in December preparatory to action by the House of Delegates of the A.M.A. at that same time. Once these essentials are approved, then the way is much clearer for a presentation of our aims and objectives to (1) the Committee on Standards and Examinations of the Advisory Board for the Medical Specialties, and (2) the Council on Medical Education and Hospitals.

"In preparation for the two steps noted above, we must have a clear-cut program to present which will include an incorporated Board having a definite program for the examination and certification of properly qualified candidates. The actual incorporation of a Board is a fairly simple step, as has been brought out in our previous meetings. The determination of the Board's program as regards acceptance of candidates and their examination is a matter of greater importance. A subcommittee ought to be appointed for this purpose and should start work promptly.

"Our Chairman is of the opinion that a separate Board of Occupational Medicine is a reasonable certainty. In my own view, we still have a sizable job ahead of us to convince the powers that be that we are not more properly placed as one of the fields closely related to preventive medicine, and as such should fall in the jurisdictional area of the American Board of Preventive Medicine. The recent actions referable to Aviation Medicine supply a clue. In others words, if we were to apply for a charter under the canopy of the American Board of Preventive Medicine as did Aviation Medicine, a solution would be very promptly arrived at. If we hold out for a separate Board, I should expect that it would take a considerably longer time to marshall the essential supporting arguments.

"Two desirable steps now are: (1) a meeting of the full Interim Board as soon as possible; and (2) appointment of a subcommittee as outlined above to begin work as assigned by the Board.—C. M. PETERSON, M.D."

"It Still Stands"

IT IS TOLD of Calvin Coolidge that shortly after his elevation to the Presidency in 1923 he was visited in the White House by some business and banking leaders who were greatly concerned about the condition of the country. With the habitual taciturnity that afterward became a legend, the President listened; and, encouraged by his silence, the tycoons poured it on. Things were bad and were getting worse; disaster lurked around the corner; ruin gloated in the gloom of imminent depression. When they had done, Mr. Coolidge arose, went to the window, and, slowly pointing at the Washington Monument, said: "It still stands."

When Saranac Laboratories were hit by the untimely death of LeRoy Gardner, around whom the fame of Saranac centered, there were some who believed, and said, that the Laboratories could not survive the disaster, that the great days of Saranac were over. Quickly and effectively, however, Saranac proved the pessimists wrong—fostering its fine traditions through new investigations; adding to the incalculable value of its work in silicosis, new and priceless studies in pulmonary diseases, the pneumoconioses in general, beryllium poisoning, siderosis, the effects of nitrogen oxide gases, and others troublesome.

Now, in 1953, Saranac is confronted with a second disaster, albeit a lesser one, in the resignation of its able director, Dr. Arthur Vorwald. And again there are some who believe, and say, that Saranac is not to survive. Again they are wrong. The best of all seers is the past, and Saranac's past brilliantly presages a long and constructive future.

Outstanding in Saranac's past, and signalizing its right to a long and important future, are the scientific contributions it made to the health of the nation when it took the mask off silicosis, revealing its ugly nature and showing how it might be prevented. Never has Saranac measured its profits in dollars. The only profits it can count are, perhaps, uncountable—they exist in the lengthened and more comfortable lives of unidentifiable thousands to be found in the mines, potteries, foundries, and mills of the world. Saranac has a lasting reward in the fact that the names of these unnamable tens of thousands appear on payrolls and not on gravestones.

Upheavals and re-adjustments come and go. They are a part of every enterprise. The fortunate outcome of all that may be happening at Saranac is already assured. The recently elected Chairman of Saranac's Board of Trustees is Dr. J. Burns Amberson, recognized as the dean of specialists in the field of pulmonary diseases. And Dr. Gordon Meade is recasting the organizational structure of Trudeau Sanatorium, Trudeau Foundation and Saranac Laboratories under what will probably emerge as the Trudeau-Saranac Foundation.

There will be no interruption of Saranac's services to industry. Long ago there came to Saranac well-earned confidence and support from the medical profession, industry, labor, insurance companies, the foundations, and governmental departments. That same confidence is more than ever deserved. Look for the same support to be continued. Saranac still stands!

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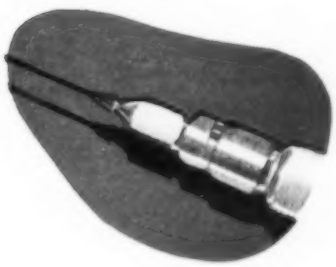

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News, Comment, Opinion

IF YOU THINK your company has a good grapevine, just figure out what a grapevine is like when it has a million miles of telegraph wire linking it together. We used to make the claim that if Western Union's President sneezed in New York, you could get a "Gesundheit" from our San Francisco office in eight seconds.

—From an Address by J. L. WILCOX, Vice-President, Western Union Telegraph Company.

Faith

MY FAVORITE incident which I have related many times happened several years ago. Two little children, carrying a stunned dog, pushed violently on the front door bell. "You're the company nurse. Our dog doesn't move. Do something about it."

—From "The Value of Medical Service in Industry," by WILLIAM B. GIVEN, JR., President, American Brake Shoe Company.

Detective Work

MEDICAL diagnosis requires meticulous detection work, for each patient has his own particular occupation, profession, work environment, or hobbies which will suggest to the physician special lines of inquiry. Initial evaluation of occupational factors belongs to all physicians, and, where indicated, further study may be delegated to the industrial physician and others with added experience with specific occupational diseases.

—From "Diagnosis of Occupational Disease," by O. T. MALLERY, JR., M.D., in *J. Michigan State Med. Soc.*, June, 1953.

The Good Old Days

GOT A KICK out of leafing through some menus dating back as far as 1800 the other afternoon. One in particular, quoting the prices listed at the still remembered Delmonico's, told of the prices one found on a then expensive menu of 1834. The regular dinner was priced at 12 cents. Roast chicken, al a carte that is, cost a dime, while roast mutton was less expensive at five cents. A cup of coffee or tea cost the diner all of a penny. If you were a pie eater and liked your apple or cherry tarts after dinner you'd have to go as high as four cents for each piece of the doughy stuff.

—*The Diners' Club News*, July, 1953.

Practical Guide

INDUSTRIAL HEALTH SERIES NUMBER 6, issued to group policyholders by the Policyholders Service Bureau, Metropolitan Life Insurance Company, New York (24 pages) is a practical guide for the employer who is considering setting up an employee health service. All the fundamental considerations that enter into the establishment of a sound plan are covered, including the extent of the service (e.g., 2,000 to 3,000 employees will keep one doctor busy full time), space and layout, equipment, costs, and maintenance of medical records.

—*Management Review*, April, 1953.

Podiatrists

MARY DONLON, Chairman of the New York State Workmen's Compensation Board, announces the appointment of two podiatrists and a woman physician as the three members of the Podiatry Practice Committee under the terms of the Podiatry amendment to the New York State Workmen's Compensation Law. Under the amendment, which becomes effective September 1, 1953, authorized podiatrists are permitted to render treatment in workmen's compensation cases.

Color

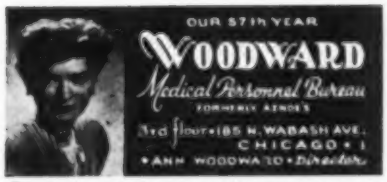
RECOMMENDING color engineering steps for R. R. Donnelley and Company, Chicago printers, Faber Birren used such neutral colors as blue-greens for plant areas generally. Lighter greens for upper walls have a reflectance value of 50%, considered ideal for seeing. Dado and trim is a deeper green, but light enough to assure good housekeeping.

—*Iron Age*, May, 1953.

Health

HEALTH is not just the avoidance of disease. A person can go through life and never have a recognizable disease, never need to call a doctor, and yet we may not think that he has a healthy body or a healthy personality. Health is a kind of surplus vitality, something that permits you to participate in life with enthusiasm, to meet people or tasks with a certain zest. A healthy person must have enough vitality to give a surplus to others.

—ERIK K. ERIKSON, quoted in *Illinois Health Messenger*, May 15, 1953.



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Medical Director: (171) Diplomate, Internal Medicine; Assistant Professor, Industrial Medicine and Public Health, important medical school; past seven years, Medical Director, major company; outstanding man.

Medical Director: (172) Well qualified in medical problems in chemical field; past 12 years, Assistant Medical Director, major company and Director, 12 regional plants, same company; highest recommendations.

Staff Physician: (173) 31; Graduate, Western Reserve; two years, surgical internship, teaching hospital; two years, USAMC; past year, private practice; prefers industry.

Industrial Nurse: (174) 36; B.S. Graduate, Johns Hopkins, School of Nursing; past five years, Chief Nurse, leading industrial company; excellent references.

POSITIONS OPEN

Medical Director: (31) Leading company; third largest in its field; career post; 50 plants, domestic and foreign; requires young, outstanding man; Headquarters in New York City.

Medical Director: (32) regional plant of major company; about 2500 employees; excellent college town; Mideast.

Medical Director: (33) able to organize entire medical program; newly created post; fairly large industrial company; well equipped, staffed, dispensary; college town; East.

Medical Director: (34) Newly constructed plant; one of largest companies in its field; excellent town on Mexican Gulf; substantial.

Medical Director: (35) Pittsburg plant of major company; full responsibility; wonderful potential to advance in this important industrial company.

Medical Director: (36) one of most important AEC university programs; opportunity isotopic research; around $10,000 initially.

Staff Physician: (37) Well organized industrial medical department; large company; around $12,000; opportunity to succeed present director; Midwest.

Staff Physician: (38) As assistant to Medical Director of large company; will assist and do own surgery; some private practice; about $12,000; New Orleans area.

Staff Physician: (39) Overseas construction project; semi-tropical; one year contract; $14,000; if term extended, no U.S. income tax.

Staff Physician: (40) To become Assistant Director of important company's toxicological laboratory; only one of its kind in America; outstanding for research; about $12,000; East.

Staff Physician: (41) Preferably one with good surgical experience; opportunity become assistant Medical Director plantation hospital; around $12,000; Hawaii.

Staff Physician: (42) Construction project; long program; work under chief surgeon; good salary; new home or apartment available; pay all expenses interview and moving; town 50,000; South.

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Head Man Hardier?

THE BOSS is sick less than workers under him, and on the average lives as long as others in his plant and office. He may develop ulcers. But apparently the mental and physical assets that lifted him to the top of the heap help him dodge or shake off ailments that lay his employees low. That's what DR. C. D. SELBY, University of Michigan School of Public Health, told fellow doctors at an American Academy of General Practice meeting in March. "Of all factory workers," he said, "the men of management, from supervisors straight up to the top, are the people who really have take-home worries, but their disability rate is not high. It is suspected that they become immune to the effects of problems over which they have little or no control, or in the solution of which they have done the best they were able to do under the circumstances. If the men of management were unable to do this they would not long survive as management, for theirs is a rugged life." DR. SELBY was referring mainly to "voluntary" ailments. "Involuntary" ailments are something else. These may result from built-up tensions that explode internally and cause ulcers. High executives apparently have less resistance to these. We wonder whether comparative health statistics are affected by the fact that many employees feel they must "report sick" when they want a day off—while the Boss can take off for a round of golf with no questions asked?

—*Personnel Journal*, May, 1953.

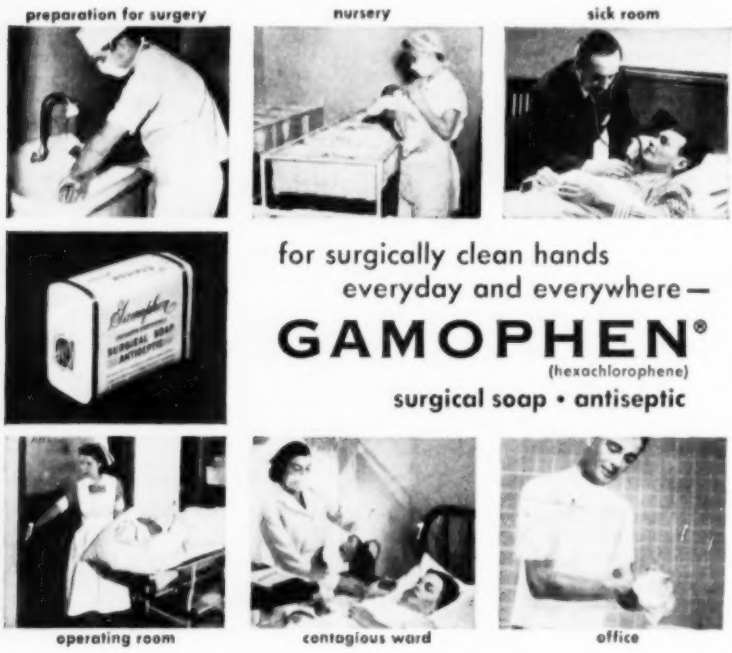
Industrial Health Problems

THE physician in private practice, obviously, must be prepared to render proper curative and reconstructive services to those with occupational injuries and diseases. Our educational programs should place greater emphasis on those subjects in order to give all physicians an opportunity to become more competent in the management of industrial cases. However, the private physician also must take an increased interest in the preventive aspects of industrial health. He must acquaint himself with the causes of industrial exposures and hazards and methods of control. Many plants cannot engage the services of a full-time physician. Thus, they must depend on physicians in private practice for advice and guidance on these matters. If the physician consulted on such questions cannot provide proper advice, he should at least know where he or the plant management can go for reliable information and consultation. Opportunities for a leading role in the preventive aspects of an industrial health program are great for many physicians in private practice.

—P. A. DAVIS, M.D., in *South. Med. J.*, quoted in *West Virginia Med. J.*, July, 1953.

That Coffee Break

PRACTICE of granting free periods each day for rest and refreshment has become fairly universal by now, judging from casual observation and also from recent study by Pan American Coffee Bureau. Custom got its start during World War II, when mid-morning coffee lift was considered important for war-workers'



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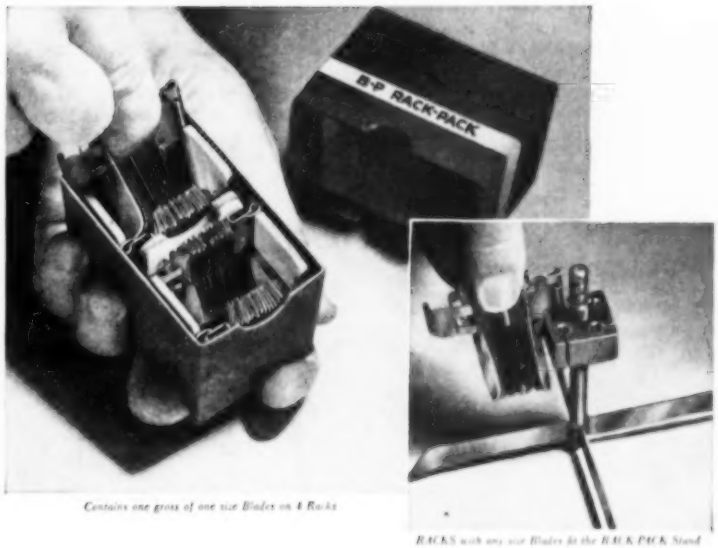
morale; has since grown into hallowed tradition in many plants. One sign that "coffee breaks" have come of age is fact that they were recently negotiated for and made into a contract provision by an AFL Machinists' union in Minneapolis. Provision calls for 10-minute morning and afternoon refreshment period—and stipulates that company will furnish coffee, cream, and sugar (as it had been doing on voluntary basis). That serious problems are also developing—as they must with all new institutions—is brought out in survey of over a hundred industrial concerns in Detroit area. Determining ratio of advantages (morale, good-will, etc.) to disadvantages of rise in direct costs is a necessary consideration, since survey showed that average time spent this year for free periods will cost employers equivalent of two weeks wages per employee. Another problem, reported by some firms in survey, has been poor use of this new-found free time. Some employers reported that gambling, bootlegging, and other antisocial activities have been encouraged—all of which has effect of harming morale, rather than helping it. Suggested remedy was better supervision and organization of coffee breaks and similar periods. Experiment in unsupervised coffee periods was successfully developed by Burns and Roe, Inc., New York engineering firm. Entire staff was made "coffee-break conscious" through series of bulletins stating management's belief in value of periodic breaks in work routine, its willingness to grant reasonable amount of time for such breaks provided privilege is not abused by loitering, etc. Any interference with duties would revoke privilege, company also stated.

—*Personnel Executives' Newsletter* (Deutsch & Shea), 3:12 (June 30) 1953.



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Vitamins

CONSUMER STANDARD, of Torrance, told the Industrial Health Conference here that tests on 2200 workers show savings of more than 10 working days per worker per year when vitamin supplements are used. It said absenteeism among the workers dropped 18.6%, turnover was reduced 38%, and production per worker increased by 4.1%.

—*Los Angeles Mirror*, June 4, 1953.

Cartilage from Cows

NEW NOSES, chins and other facial sections and parts for human beings are being built these days by plastic surgeons using cartilage taken from young cattle. A soft, white, rubbery substance located at the end of the steer's breastbone has been transplanted successfully in scores of recent operations, reports *Capper's Farmer*. The cartilage is removed immediately after an animal has been slaughtered, and is then processed and stored in a sterile solution for future use. While it isn't in the same class, medically speaking, let's not forget there's still a lot of beef steak used for black eyes!"

—*Beloit News*, March 12, 1953, quoted in *Wisconsin Med. J.*, May, 1953.

Diabetes

UNDER sponsorship of the Adams County Health Department and the County Medical Society, a pilot study has been conducted to determine the incidence of diabetes among industrial workers of that area.

Receiving tests were 1,121 persons, or about 47.5% of the men and women employed in three industries. Four were found positive and were referred to their family physician for further study. The remainder were notified of their freedom from the disease.

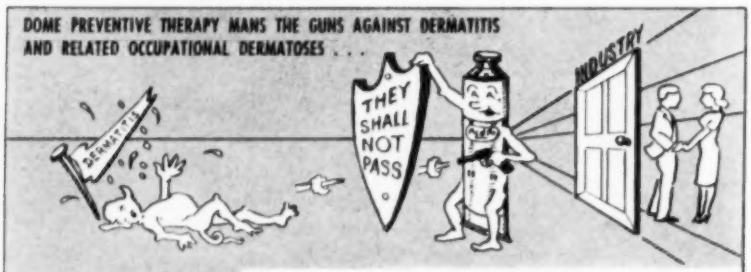
—*Illinois Health Messenger*, April 1, 1953.

"Step Back, Buddy"

THERE is a well known story concerning the physician who was called to administer first aid to the victim of an automobile accident. He had no more than started his services when some burly individual elbowed his way through the crowd, and rudely pushed the doctor aside, saying "Step back, Buddy, I'm a first aider. I'll take over." This may be humorous in fiction but becomes considerably less so in fact. A physician acquaintance of ours almost had just such an experience recently. He happened on the scene of an accident shortly after its occurrence and stopped to render whatever aid possible. He found an old man lying unconscious beside a partially wrecked car, with his head lying in a pool of blood. His daughter was bending over him wringing her hands and vainly trying to recall him to consciousness but doing nothing whatever about the bleeding. The physician hastily improvised a pressure bandage from the materials he had at hand, stopped the bleeding and brought the old man back to consciousness, examined him for other injuries and took charge generally of the medical situation, much to the relief of the investigating officer who had meantime arrived. He stayed with the patient until the ambulance came. Upon its arrival about 25 minutes after the accident, he attempted to tell the ambulance driver and his assistant what had been done, the condition of the patient—information which he felt would be useful to them in the transportation of the patient to the hospital. He was completely ignored, the attendants rushed in to the patient, turned him over immediately on his back without investigating as to whether he had a back injury, and unceremoniously ripped off the bandage the physician had applied. At this point the investigating officer interrupted them saying the patient had been prepared by the physician for transport, whereupon the physician received the comment with no note of apology that a different type of bandage was needed. Since the first aiders had obviously taken over, the physician immediately took his departure.

—Editorial in *Arizona Medicine*, 10:5 (May) 1953.

DOME PREVENTIVE THERAPY MANS THE GUNS AGAINST DERMATITIS AND RELATED OCCUPATIONAL DERMATOSES . . .



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Human Factors

TWO committees to work on human problems in industry have been set up jointly by the Department of Scientific and Industrial Research Council (Great Britain), one be-

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ing concerned with human factors in individual efficiency, and the other with human relations. The first committee will study the workers and his job, and the second such subjects as the relation between the manager and the worker, between the worker and his fellow-employees, and between the foreman and the technical specialist.

—*Nature*, April 18, 1953; in *Industrial Hygiene Digest*, June, 1953.

In Japanese

RIGHTS to translate into Japanese and publish the book "Industrial Health Engineering" by A. D. BRANDT have been purchased by the Nohon Anzen Eisei Kyokai Publishing Company.

—*Industrial Hygiene Digest*, June, 1953.

Nuclear Engineering Conference

A CONFERENCE on nuclear engineering, at the University of California, Berkeley, September 9-11, 1953, is expected to cover technical and engineering-economic studies of nuclear power plants, other reactors, isotope production and separation, and isotope applications. The Conference has invited the presentation of papers on design, construction, and operation of nuclear process systems; translation of physical, chemical, and biological information into engineering design criteria; and special problems and methods for their solution, including research and development techniques of an engineering nature. Details obtainable from R. A. FAYRAM, 208 Mechanics Bldg., University of California, Berkeley 4.

—*Atomic Energy News Letter*, April 21, 1953; in *Industrial Hygiene Digest*, June, 1953.

Medical Costs

TAKEN as a whole, medical costs are not out of line with other normal living expenses. Statistics presented by the United States Department of Labor for the

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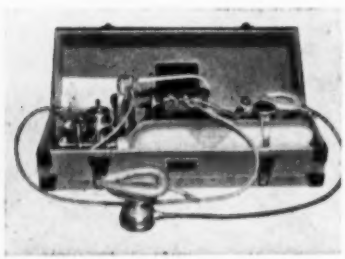

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third quarter of 1952 reveal that living costs have increased 90.8% since 1935-39, while medical costs have increased only 65.5% in the same period. In addition, it should be noted that recent surveys indicate that only 3% of American families have medical bills amounting to more than $200, and that 80% have no medical debts of any kind.

—From a Statement by DAVID B. ALLMAN, M.D., to the Committee on Ways and Means, Washington, D.C., June 17, 1953.

Does The Motive Matter?

INDUSTRIAL organizations are constantly inaugurating and carrying out programs in their plants having to do with the welfare of employees. Such programs are commendable. They result in much good. However, criticism is made frequently that when most industries make public reports of such programs, the spokesmen for the industries always stress such items as "increased employee efficiency with resultant increase in output," which of course means an increase in profits. There are those who consider that industry is prompted first of all by a purely selfish motive in fostering such programs. But, regardless of the motive, the employee is usually benefited. Corns and bunions may be removed from his feet. His vision may be corrected with glasses that are recommended. His general health may be improved through better ventilation and through humidification control. His safety may be enhanced through various mechanical devices and through his own observance of good safety practices taught through training programs within the industry. So, it comes down to the question, does the motive really matter as long as both employer and employee are benefited? There are those who contend such a motive is in no way moral if originated in, if grounded in, selfishness. This point is certainly open for discussion. What is your idea about this?

—*Lamnet (Alabama) Valley Daily Times-News*, April 29, 1953.

Good Business

IT'S GOOD business to let plant health benefits spill out into surrounding neighborhoods, employers were told recently. In a policy statement on "Industrial Health and Medical Programs," National Association of Manufacturers points out that the benefits of a company's health activities "go far beyond the walls of its plant." They not only help protect the workers' health at home but also promote community good will. Companies are urged to improve and expand plant health programs, make hospitalization and medical prepayment plans available to employees, encourage improvement of community health services and facilities. Copies of the statement are available from the NAM Industrial Health and Safety Committee, 14 West 49th St., New York 20.

—*Medical Advance*, 1:6 (May) 1953.

Not Hard Work

DR. THEODORE G. KLUMPP, President, Winthrop-Stearns, Inc., New York, told the American Association of Cereal Chemists at New York, on May 25 that lack of physical exercise and overeating, not hard work, are the major causes of heart attacks among business executives in the United States. Scoring the "great American neurosis" that hard work is the cause of heart failure, he stated that business executives are apparently the foremost victims of this "false" notion. "Consequently, they work with mental brakes set against their work and in mortal terror of a heart attack. They are afraid to live for fear of dying." Contrary to popular belief, DR. KLUMPP said, heart attacks are the climax of a gradual process of arteriosclerosis and are not brought on by violent physical activity on a golf course or by intense mental strain. He cited studies showing that half of such deaths occur during sleep, and only 2% of heart attacks during severe exertion. "If hard work, pressure, strain and wear and tear were the factors resulting in heart attack, then neither President Dwight Eisenhower nor Adlai Stevenson could have survived the strenuous 1952 political campaign. Indeed, almost every President and most congressmen should drop dead in office if these were vital factors. Throughout the world where sustained physical activity during a lifetime is the rule, and food is not abundant, coronary heart disease does not appear to be a problem," Dr. Klumpp told the convention. He added that diabetes as well as heart attacks occur more commonly in the United States among overweight people.

Houston Conference

HOUSTON, Texas, Chamber of Commerce announces its Sixth Annual Conference on Industrial Health to be held October 1-3, 1953, in the Shamrock Hotel. A few of the Conference subjects: "Health Problems in the Petroleum Industry"; "The Heart in Industry"; "Waste Disposal Problems"; "The Role of the Industrial Health Program"; "The Future in Industrial Health."

Not Employees

THE Bureau of Internal Revenue now holds that physicians giving part-time services to industrial medicine are not employees of companies which engage them. The latter, accordingly, need not cover them under unemployment insurance or social security. The Bureau has revoked a regulation dating back to 1938 which included part-time company doctors within the definition of "employee" for purposes of welfare coverage.

Meeting in Hawaii

THE Territorial Association of Plantation Physicians (component society of the Industrial Medical Association) had arranged a program of its own on Friday, May 1, the opening day of the 63rd annual meeting of the Hawaii Territorial Medical Association at Wailuku, Maui, Hawaii. Following the Health Conference at Los Angeles, about 30 IMA members flew to Honolulu as delegates to the Plantations Physicians Meeting. In addition there were about 40 members of the Territorial Association in attendance. DR. GEORGE WILKINS, IMA President, gave an address on "The Future of Industrial Medicine"; and DR. EARL LUTZ, Associate Medical Director, General Motors, discussed "Health Plans in Big Industry." Later there was an industrial medicine and medical economics panel luncheon at which DR. W. H. WILKINSON, was moderator; and DRS. EDWARD C. HOLMBLAD, EARL LUTZ, LEO PRICE, FRANK HATLELID, SAM WALLIS, J. ALFRED BURDEN, F. J. HALFORD, and JOSEPH R. VELTMANN were panel participants. Among the IMA members who made the trip in addition to DR. WILKINS and DR. LUTZ were DRS. E. B. CUDNEY, Pontiac, Michigan; CARL GANS, Morenci, Arizona; MAX CORBETT, Chicago; T. J. KENDRICK, Boston; E. S. JONES, Hammond; and E. C. HOLMBLAD, Chicago.

Interim Board Meeting

THE Interim American Board of Occupational Medicine held a meeting at the University Club, Chicago, July 18, 1953. Present were DRS. PETERSON, KAMMER, SLOBE, MCCORD, JOHNSTONE, LANZA, and KEHOE.

Teaching Faculty

JOHN ALLEN, M.D., Medical Director, Oscar Mayer & Company, Madison, advises that his Department of Industrial Medicine has become a part of the teaching faculty of the University of Wisconsin Medical School. "A senior medical student is assigned here each week and is on the service with me, at which time he is exposed to various aspects of industrial medicine. In addition, we participate in a three-day symposium on industrial medicine twice a year for the University medical students in cooperation with various other participating industries."

Industrial-Medical Conference

MONTGOMERY County Medical Society conducted an industrial-medical conference at the Moraine Products Division, General Motors Corporation, Dayton, Ohio, May 1. B. A. BROWN welcomed 83 members of the Society on behalf of the Division. Afterward DR. NEWTON E. LEYDA, Medical Director, talked on "Medical Practices of Industry"; C. RUSSELL COX, Safety Director, on "Industrial Safety"; and WILBUR C. NEFF, Director of Insurance, on "Industrial Insurance and the Private Practitioner." Following the talks, there was a discussion by a five-man panel on the problems of industrial and private physicians. The meeting was preceded by a dinner, at which DR. ROBERT C. AUSTIN, President of the Medical Society, presided.

New du Pont Laboratory

E. I. DU PONT DE NEMOURS & COMPANY announced July 6 that its new $2,000,000 laboratory near Newark, Delaware, to be called the Haskell Laboratory for Toxicology and Industrial Medicine, will be dedicated this fall. Scientists there will investigate causes and effects of fatigue, basic factors that make clothing comfortable, and methods for the early determination of abnormal heart conditions, as well as the toxicity of chemicals made or used by the company.

—*New York Times*, July 7, 1953.

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The New Look

INDUSTRY today is sophisticated. The front office has gone modern with brick, plate glass, blond furniture, and hot-house plants. Applicants for work are no longer confronted by a clerk working under the superintendent of employment. They are greeted by a gracious receptionist whose superior is a young and personable director of personnel with a college background and a philosophy of good interpersonal relations. Junior executives are developed with the same painstaking planning that is accorded young career men in the diplomatic service, and not even home life or their wives are beyond the argus-eyed interest of the managerial group. There is constant measuring and testing of materials, products, and performances. All along the line there is a sharpening of training, an emphasis on technical foundation, interest in interpersonal relations, and insistence on competence for specific responsibilities. Executives training in business administration possess the enlightened self-interest that finds expression in a shift from treatment to prevention in the health program.

—From "The New Look in Occupational Health Nursing," by HEIDE L. HENRIKSEN, R.N., in *Nursing Outlook*, June, 1953.

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Industrial Medical Association Thirty-Ninth Annual Meeting April 24-30 1954 Hotel Sherman Chicago Illinois

American Association of Railway Surgeons 66th Annual Meeting April 6-8 1954 Drake Hotel Chicago Illinois

University Health Director

CHARLES J. HUTCHINSON, M.D., recently retired chief medical officer of the Boston Naval Shipyard, former professor at the University of Minnesota School of Medicine, Minneapolis, has been appointed full-time director of the Brown University Health Division, to succeed DR. CHARLES A. MCDONALD, who will reach the retirement age July 1. His duties will include supervision of the health services for Brown and Pembroke under-graduates and students of the graduate school. Following World War I duty, DR. HUTCHINSON held naval reserve status and in 1940 was recalled to active duty when he took charge of the naval dispensary at the University of Minnesota. Thereafter, he was engaged in the medical outfitting of ships on the Pacific Coast and served for a time as senior medical officer of an attack transport whose mission was the evacuation of casualties from Pacific island invasion beaches.

—*J.A.M.A.*, June 13, 1953.

No Doctor?

RACINE has 19 hospitals. That figure, of course, includes St. Luke's and St. Mary's. Industries maintain 17 hospitals located in the hearts of the factories. Surrounded by the noises

and smells of industry, the hospitals are oases of peace and quiet run by experienced registered nurses. Most plants have someone in the infirmaries as long as a full shift is working. "The nurses meet all the problems of doctors, nurses, psychologists and best friends. They mend the injuries and listen to troubles of a steady stream of factory and office workers every day." Office workers are reported to suffer from more colds and stomach troubles than laborers. The reason given by one nurse was that they have more time to think about such things.

—*Racine, Wisconsin, Journal-Times*, June 24, 1953.

Hyperirritability

SYMPTOMS from a hyperirritability of the autonomic nervous system are common knowledge to the profession. We are all familiar with the morning fatigue even after a sound sleep, the feeling of nervousness, the pounding heart, the tightness in the chest, the lump in the throat, the cardiac pain well to the left of the sternum, the gas "on the stomach" the alternating loose and constipated stools, the insomnia, the numbness and tingling in the hands and feet, the sweaty palms, the indefinite diffuse backache and similar symptoms.

—From "This Era of Anxiety," by R. J. MCARTHUR, M.D., President, Hawaii Medical Association, in *Maui News*, May 6, 1953.

Foot Clinic

AT THE Bridgeton plant of Owens-Illinois Glass Company, Toledo, Ohio, the Medical Department has started a foot clinic as an answer to complaints of foot troubles and backaches derived from foot ailments. Of the 88 people checked during the first session, over half had some kind of foot trouble. Clinics will be held periodically.

—Connecticut General's *Notes and Quotes*, July, 1953.

Conference on Aging

UNIVERSITY of Michigan's Sixth Annual "Conference on Aging" was held at Ann Arbor, July 8-10, with 300 in attendance. Among the speakers, JOHN W. JOANIS, of the legal department of the Hardware Insurance Company, said: "Younger women put the job secondary to personal and home activities. You can train a person in job knowledge, but you cannot train a person in attitudes and dependability." He noted that a survey of 90 cities showed that 36,700 job applications out of every 660,000 were from women over 45. In an earlier talk, SEYMOUR L. WOLFBEIN, of the U.S. Department of Labor, cited statistics to show that the average individual has a life expectancy greater by 24 years than existed in 1900. Highlight of the three-day conference was a talk by OVETA CULP HOBBY, Secretary of the U.S. Department of Health, Welfare and Education. MRS. HOBBY said: "Medical science is surmounting the physical barriers of age. We must now surmount the psychological barriers involved in the employment of older members of our society. We should assault the prejudices against age as vigorously as we are fighting the diseases of age in the re-

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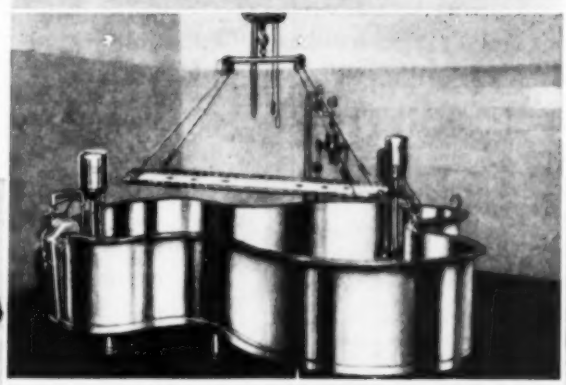

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Jl. Inv. Derm., 17:125 (Sept., 1951)

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search laboratories." MRS. HOBBY blamed an "irrational" accent on youth and lack of appreciation of wisdom and age for much of our prejudice. She outlined the following road-blocks between the older worker and the job, "which must be removed one by one": Compulsory retirement, unfair pension policies, inadequate research, lack of counseling, lack of sheltered workshops, little chance for home employment, and lack of promotional drives.

Tizzy

A FARMER asked his new hired man to chop some wood—half a day's work. In two hours it was done! Then the farmer put him at piling rocks. Again the man did it in half the time. To give him an easier job, the farmer showed him a pile of potatoes in the cellar. "Put the ones good for planting in a pile," he said, "and throw the ones for eating in this barrel." A few minutes later the man came upstairs, pale and trembling. "What's the matter?" the farmer asked. "Take me off that job," the man begged. "Those decisions are killing me!" If you ever wonder what management does, think of this story.

Economy

INDUSTRY tells the administration it shouldn't ban the coffee break for government workers because 10 minutes of coffee is worth 45 in the ladies' lounge.

—*Changing Times*, May, 1953.

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IMPORTANT: EMETROL **must *not* be diluted or followed by any liquids for at least 15 minutes.**

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1. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. 35:311, 1953.

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REDUCE FEMALE ABSENTEEISM due to DYSMENORRHEA

Increased number of women in industry means the Industrial Physician is giving greater attention to illnesses which cause absenteeism among female employees. Undoubtedly the most common cause is Dysmenorrhea.

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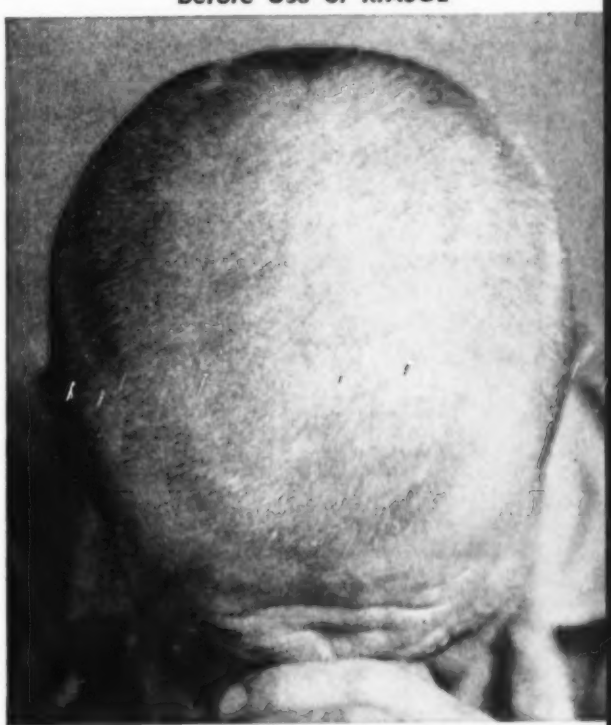

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REFERENCES:
1. Gastric Tolerance for Aspirin and Buffered Aspirin. Ind. Med. 20:480, Oct. 1951.
2. Effect of Buffering Agents on Absorption of Acetylsalicylic Acid. J. Am. Pharm. Assoc., Sc. Ed. 39:21, Jan. 1950.

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